

LAKE
TANA
AND
THE
BLUE
NILE

LAKE TANA & THE BLUE NILE

AN ABYSSINIAN QUEST

MAJOR R. E. CHEESMAN

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Lake Tana and the Blue Nile

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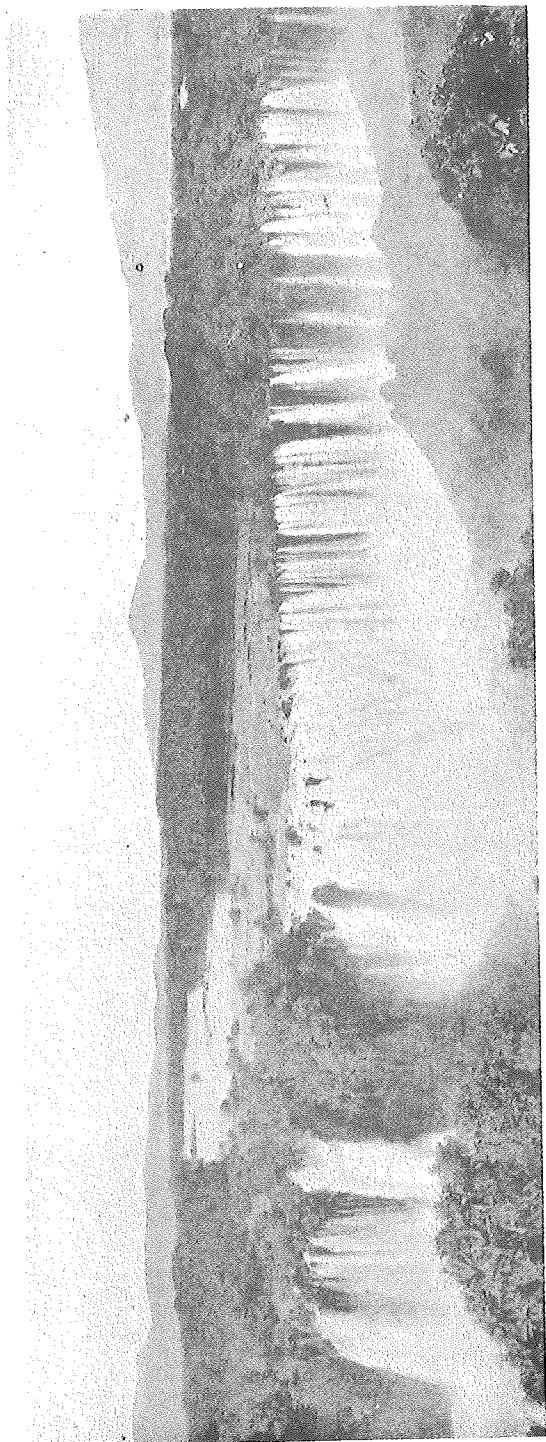
NEW IMPRESSION

Major Cheesman was for nine years H.M. Consul in North-West Abyssinia where he received permission to make a survey of the Lake Tana Region and of the Blue Nile on its course through Abyssinia to the Sudan. The result of his several journeys was that he visited all the islands of Lake Tana, which had never been seen by any European, and made the first journey from the Lake down the Blue Nile through entirely unexplored country to the furthest point reached by expeditions which had entered Abyssinia from the Sudan. While relating the difficulties of following the course of this river, Major Cheesman had occasion to discuss not only topography, but also the administrative methods of Abyssinia, the effect of climate on the distribution of the Abyssinian races, their history, customs and culture.

This book differs entirely from the numerous books on Abyssinia which have appeared, as it deals with an area hitherto completely unknown; in addition Major Cheesman has recorded the results of several exploratory missions together with a narrative of the physical and social conditions of a large and inaccessible area of Abyssinia.

SHOUT
SHARE **IT**





BLUE NILE AT TISISAT, JANUARY 9TH, 1934

LAKE TANA AND THE BLUE NILE

AN ABYSSINIAN QUEST

MAJOR R. E. CHEESMAN



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TO MY WIFE

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PREFACE

ON Christmas Eve in the year 1934 a motor-car packed with suit-cases was stolen by highwaymen. This did not take place in Abyssinia, but in a London street in broad daylight. At the bottom of one of the suit-cases was the typed manuscript of *Lake Tana and the Blue Nile*. The police, informed by telephone, were quickly on the scene, and made a detailed list of the missing property. At the end of the writing of a long inventory the detectives remarked that the car would be found abandoned but none of the contents would be recovered, and, as events proved, they were perfectly right.

In January 1935 I began, with a heavy heart and a heavier pen, to write the story all over again from the original notes. The lost manuscript had taken six years to compose, and the following pages bear as much resemblance to it as memory could contrive, but there were references to old volumes and other notes pinned to the pages that had gone for ever, for it has been impossible to remember where they all came from and in many cases what they were.

I should like to express my thanks to some of those who have helped in the preparation of the material for this book. In the case of the late Sir E. A. Wallis Budge it is unfortunately no longer possible. His scholarship and knowledge of Ethiopic and ecclesiastical literature had been unstintingly placed at my disposal until his last illness. To Sir Sidney Barton, His Britannic Majesty's Minister in Addis Ababa, whose support of my request to the Ethiopian Government for permission to visit the islands of Lake Tana eventually won the much-coveted consent of the Emperor, I owe a debt of gratitude.

Scientific specimens sent home to the British Museum (Natural History) and now presented to the National Collection were dealt with by specialists in their several departments.

With the assistance of Dr. Percy Lowe and Mr. N. B. Kinnear of the Bird Room, and of Mr. W. L. Sclater, who undertook the work of identification, over two thousand specimens of Abyssinian birds, including several new to the Abyssinian list or rare in museums, and one new subspecies, were collected and classified, and the results have been published in *The Ibis*.

The late Mr. Oldfield Thomas examined the collection of mammals and gave names to those that were previously unknown.

The correct identification of the rocks by Dr. W. Campbell Smith and of the fish by Mr. J. R. Norman has given a value to my notes that they would not otherwise have possessed.

Finally, Messrs. Macmillan have, by their suggestions and advice and by obtaining an exceptional grasp of the intricate and varied subjects touched on in this book, greatly helped me in their presentation.

R. E. C.

TILSDEN, CRANBROOK, KENT.
December, 1935

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Lake Tana	At end of volume
The Abbai, 1926-7 and 1928-9	" "

CHAPTER I

EXPLANATORY

WHEN in 1925 I was appointed His Majesty's Consul for North-west Ethiopia I must confess to a consultation of the map to find out exactly where my district was. Having discovered that Ethiopia was another name for the country better known in Europe as Abyssinia, and that it was to be found in the north-east corner of Africa, it took me some time to identify Dangila, where the Consulate was situated. The name was printed in very small type, and on some maps was omitted altogether.

Having located my future abode, I went on to get acquainted with my district as thoroughly as possible from books on Abyssinia. My boundary was more or less as follows: Northward 200 miles to the frontier where Abyssinia meets the Italian colony of Eritrea; westward 150 miles to the Sudan-Abyssinian frontier; eastward 300 miles to the Danakil deserts, a sparsely populated arid country that I never had occasion to visit; and southward 60 miles to the Blue Nile. In the middle was an inland sea, Lake Tana.

The latest maps showed the course of the Blue Nile as a series of dotted lines. Dotted or broken lines are geographical signs used on maps to denote that the exact location of the course of a river is unknown. It seemed almost unbelievable that such a famous river, and one on which Egypt had depended for its prosperity throughout the ages, could have been so long neglected.

On enquiry in England for the most recent large-scale maps of the Abyssinian portion of the river, I was in-

formed that there were none. I also heard that the course of the Blue Nile might be considered as offering the only bit of pioneering exploration left in Africa. Be that as it may, the Blue Nile Valley was the only part of Africa that had resisted the invasion of the motor-car, and it was not until 1930 that the first aeroplane was to fly over it. Ras Hailu, the Governor of Gojjam Province, had had a car brought in sections by mule from Addis Ababa, and across the Blue Nile. It was assembled in the town of Debra Markos, his capital, and he was being driven round the outskirts in it when I visited him in 1926. It could not be said that it had made the journey there as a car, and it was only used as a toy, as the tracks that were levelled for it did not extend into the outer districts. His progress on this occasion certainly made an impressive cavalcade, as he was escorted by hosts of cavalry galloping on each side of him. Countrymen who had come in from villages on the mountains, and had never heard of a motor-car, met it on the way, and were struck dumb with astonishment. Groups of them flung themselves face-downwards on the ground on the roadside, clawing the earth with their fingers, with mouths wide open and expressions of abject terror on their faces.

In 1927 a rough track had been cleared from Addis Ababa to Jarso on the edge of the Blue Nile Valley, and one or two cars had been driven to the end of the road, but up to the end of 1933 no car had crossed the valley under its own power. The Abyssinian Government had, during the winter of 1933-1934, undertaken the construction of a graded motor road descending and ascending the two great sides of the canyon, joined by a flying pontoon capable of ferrying motor-cars over the river, and the folk of Gojjam were expecting that the first car would cross the valley and arrive in Debra Markos in the spring of 1934.

The first aeroplane to fly over the valley carried films of the coronation of the Emperor Haile Silasi to Europe.

The airmen left Addis Ababa on November 2nd, 1930, struck the Blue Nile, and followed it all the way to Khartoum, where they landed after dark, having covered the distance in one hop.

But all this has happened since the days of which I am writing. In 1925 I left London with a tracing which had been specially made for me on a scale of 1 in 500,000. This was a compilation of all the survey work that had ever been done on the valley, to act as a framework on which it was hoped I should find opportunity to build.

I had by now determined that the broken line marking the southern limit of my district had to be changed to a firm black one. There were difficulties yet to be faced. One of the first problems was the provision of the necessary instruments. To the moderate purse the price of these is prohibitive. To mention only one, a theodolite costing upwards of £60 is required for accurate survey. The Royal Geographical Society, to whom I turned, not for the first time, were as usual ready to help, and lent me a theodolite and a pocket chronometer for obtaining latitude and longitude observations, and an aneroid barometer and hypsometer, or boiling-point apparatus, for measuring altitudes. I had my own prismatic compass, and, thus equipped, left England well provided for any opportunities that might occur.

There were now only two important items that had not been settled, namely how the cost of the expeditions could be met and whether one would obtain permission to undertake them. It may be as well to explain that survey work is no part of the curriculum of a Consul's duties, but happened in my case to be a hobby. Somewhat hesitatingly I broached the matter of costs to the Sudan Government on my arrival in Khartoum in August 1925, and to my great relief ascertained that such a journey as I contemplated, far from being discouraged, would be viewed with

official approval. I learned now for the first time that, in addition to the geographical knowledge that could be obtained from an expedition down the Blue Nile, there were other considerations of even greater immediate importance.

Among these was the suggestion that Lake Tana should take its part as a reservoir in the general irrigation scheme for the utilisation of the waters of the Blue and White Niles in Egypt and the Sudan.

The lake is as a matter of fact already a reservoir, the dam having been constructed by the forces of nature in some volcanic upheaval, probably long before the appearance of man as man in Abyssinia. A lava stream had flowed across the old valley of the Blue Nile, blocking the channel, banking back the water, and forming the lake. The propositions of the engineers have only been concerned therefore with the control of the overflow, so that the surplus water which passes through Egypt and flows to waste in the Mediterranean Sea during the rainy season can be retained until the dry season, when all the water can be used on the irrigated areas. Several expeditions, which will be mentioned later, have made technical examinations of Lake Tana, and have surveyed the possibilities of making a regulator at the overflow. The Blue Nile is well known where it enters the Sudan, but of the 470 miles between, excepting where four or five caravan routes cross its valley, and where one gallant attempt was made to survey the lower half of the river by boat, no one could speak with first-hand knowledge.

I ventured to ask if it was certain that the lake water actually did come out into the Sudan where it was supposed to do, as I had heard of rivers that disappear underground. The reply was that no one had followed it to see, so no one was competent to answer the question, but that it was very unlikely to go elsewhere.

This much was known, that the river during most of its

journey through Abyssinia travels in a huge canyon about a mile deep and twelve to eighteen miles across, with mountains towering above on each bank, their sides covered with uninhabited forest. It is probably larger than the Grand Canyon of Colorado and is certainly much more inaccessible.

There are four main questions which would be asked by an engineer studying the general scheme:

- (1) Are there any lakes hidden away in the bottom of the canyon?
- (2) The altitude above sea-level of Lake Tana is 6002 feet, that of the top of the Nile gauge at Roseires in the Sudan is 1492 feet. This difference in level of 4510 feet could be caused either by a continuous succession of small rapids and cataracts or by big falls and long level reaches.
Which is it?
- (3) There is ample space in a valley twelve miles broad and hundreds of miles long for extensive level areas of land suitable for irrigation.
Do they exist?
- (4) Are there any suitable sites for reservoirs?

To all of these there was no answer.

The purely geographical desiderata in addition to the above questions were: the recording of positions of boundaries of districts; obtaining the names of places and rivers not marked on maps; checking those that were already shown and correcting those not shown in their true positions; obtaining the latitude and longitude of prominent topographical features by observations on stars; securing known points on which to tie the less accurate route traverses depending on prismatic-compass bearings; mapping the correct course of the Blue Nile and of its tributaries near their junctions with the main river; taking

a series of readings of water-levels at various points all the way down the river in order that a longitudinal section of the Blue Nile in the form of a chart could be plotted which would show at a glance the fall of the river in any particular section. It would be necessary to tie these levels on to the top of the Blue Nile gauge at Roseires. This station, which is of course in the Sudan, was the first station on the river that I should meet, coming down from Abyssinia, where the level has been computed with any degree of precision. Its height above sea-level on the Mediterranean at Alexandria can be accepted as correct within three metres above or three metres below 1492 feet (455 metres).¹ It was also desirable to make a rough estimate of the water flowing in the different sections and in the tributaries.

A programme of this scope if undertaken in detail would occupy a survey party several years. A reconnaissance was the most that anyone could expect to do if working single-handed. The extent of the reconnaissance could only be decided on the spot, with the added advantage of actual experience of the valley.

There still remained the doubt whether permission to travel along the Blue Nile could be obtained. Without the full consent and approval of the Abyssinian Government it could not be undertaken, and, if they had refused, all my preparations would have been wasted.

In January 1926 I was still in Khartoum awaiting the arrival at Gallabat, on the Sudan-Abyssinian frontier, of my mule caravan, which would take me to Dangila. At that time Mr C. H. Bentinck, who was British Minister in Addis Ababa, arrived in Khartoum. Before I had unfolded my hopes to him he mentioned that Mr Zaphiro, his Oriental Secretary, had made the suggestion to him that I should be asked to undertake a journey down the valley of the Blue Nile. Mr Bentinck thought that on his return

¹ The value used in the Grabham and Black Report.

to Addis Ababa he could obtain the consent of His Highness Ras Tafari, the Regent (as he was at that time), for the expedition. Within a month the necessary permission had been given. The fates seemed to be working for me: it only remained for me to make the journey, and on the map that seemed moderately easy. I was to be undeceived later, as it proved to be a venture not to be lightly undertaken, and I then understood why the secrets of the Blue Nile Valley had remained so long unrevealed.

It took a fortnight to travel on mule-back from Gallabat to Dangila, because North-west Abyssinia has no roads. There are rough tracks worn by the feet of mules up and down the mountain-sides along which your mules scramble, your tents and baggage accompanying you on pack-mules, and there is no less arduous way of getting there. On reaching my post, on the last day of February 1926, official duties and calls on Abyssinian chiefs in my district, recalling the pomp and ceremony of mediaeval England, occupied my time, and it was not until the end of the year that I could give serious attention to the Blue Nile.

I was, however, travelling round the country and gaining useful experience of local conditions. My survey work had to be subordinated to my regular official duties and journeys. It was not often possible to arrange a programme as a professional surveyor would do. He would select his main hills, climbing and making stations on the top of such as were suitable, fixing their positions and working the surrounding country from them. If visibility were bad, as it frequently is from low cloud and haze, he would wait several days until he had all the readings he required. I had to utilise stations which were often my camps or hills beside the caravan routes, because they were near at hand, fixing their position by bearings on known hills. On clear days it is not unusual to get a sight of a mountain-top eighty miles away. After having ob-

tained the position of several hills, the bearings from them to a mountain not on the map would, where the lines intersected, give a position which a surveyor would have been able to obtain by a less roundabout method.

The amateur has to utilise his spare time between arrival in camp and sunset, and, if it happens that his hills are obscured by cloud, he has to move on at dawn next morning whether it has been possible to obtain a desired bearing or not.

The average rate of travel for a mule caravan on fairly level tracks is two and a quarter miles an hour. This rate was obtained from averaging hundreds of miles of mule journeys, beginning and ending at known points, and proved a surprisingly reliable figure on which to calculate distances, even in varying types of country. Occasionally, of course, the climbing of a cliff ascent and the swimming of a swollen river may delay you a whole day, when a special allowance has to be made in your figures.

The average daily journey for the caravan is five hours; for the rest of the day the mules are turned out to graze. Faster travel is possible, especially on short journeys, but the man who hastens on long marches is only storing up trouble for himself towards the end. Grass is sometimes scarce and corn cannot always be obtained, and mules go hungry and become weak, saddle-galls develop, the loads of the weaklings have to be added to those of the stronger mules, which in their turn become weak, and you have the alternative of either buying fresh mules, if you are lucky enough to find them, or coming to a standstill.

Distances are great in terms of mule-travel even if the mileage in comparison with that covered by other kinds of transport would appear small. Some of the Governors of Provinces in my district lived 150 miles from Dangila, and a visit to them entailed an absence of six weeks.

The climate at different altitudes is a factor in Abyssinian

travel that repays very careful study. Many a European passing through has missed the complete fulfilment of the objects of his expedition because he has either been unable to obtain correct information about the conditions or has disregarded them.

Dangila is situated on the high plateau at 7335 feet above sea-level. At this altitude and above there is no malaria or horse-sickness throughout the year. A great deal of the plateau lies at from 6000 to 8000 feet, but there are places through which one must pass below 6000 feet, and here experience and caution are necessary. During the dry season, December to April, the lower altitudes are safe, and malaria-carrying mosquitoes are entirely absent. The rains begin about April, and the first heavy showers start mosquitoes and flies. Your men, especially those who have been born on the highlands, go down with malaria and seem to have little power of resistance.

Mules die of the disease locally called *nigma*, and more generally known as horse-sickness, for which veterinary science knows no prevention or cure. Its origin is also not known. A mosquito is suspected, but it has never been identified. Often your strongest mule falls and is dead within an hour. The only symptom which is apparent is a swelling above the eye, where in healthy mules there should be a hollow. Europeans who have experience of Abyssinia only during the dry period, which is the usual and by far the most comfortable travel season, or have moved about during the rainy season but have not been below the 7000-foot levels, are inclined to underrate the risk run in taking horses and mules there. For their benefit I will give one instance, although many more could be added. Duty necessitated my leaving Dangila for Gallabat in September 1930, as I had received instructions to go to Addis Ababa to attend the coronation of the Emperor Haile Silasi. The direct line would have been a distance of

200 miles, but this track crosses the Blue Nile, which would have been in heavy flood, and as there are no bridges on the route it would have been impossible to get over it. I had therefore to go 2000 miles or more instead, passing through Gallabat, Khartoum, Port Sudan, down the Red Sea to Jibuti, and from there by rail to Addis Ababa. The Dangila to Gallabat section was done by mules, all the rest of the way being covered either by car, rail, or steamboat.

On September 23rd we had started to climb down the escarpment from the high plateau, with six days in the uninhabited forests of the lowlands in front of us. It was just after the three months of heavy rain, but there were occasional showers and the grass was still green. By the time we reached Gallabat, 2493 feet above sea-level, half the mules and one horse were dead. We had had the greatest difficulty in getting our loads as far as the frontier on the mules that remained. I placed the tents and heavy kit in store to lighten the packs and sent the surviving mules and donkeys back to the high plateau with all speed, in the charge of my interpreter, and they reached it six days later. Out of twenty-two healthy mules that had left the plateau only three got back alive, and out of fourteen men ten had malaria, and some of them had not recovered six months later. If it had not been for the fifteen donkeys in the caravan, none of which were affected, the mule-packs would have had to be left in the forest. Donkeys were immune in this case, but there are places where even they cannot live.

I had no tsetse-fly areas to contend with, although specimens have been obtained not far away, and it is generally believed that they are gradually extending their range northward along the lowlands between the plateau and the Sudan.

The spelling of place-names presents special difficulties when one is dealing with territory hitherto unmapped.

This is true even of a comparatively familiar name like that of Lake Tana. In Addis Ababa the *t* is certainly pronounced with a *ts* sound, and has thus been rendered in some English official reports as *ts*, while in others the hard *t* has been used, and in some of the earliest books the name is spelt with an *s*. Educated Abyssinians of Gojjam and Bagemdir Provinces which surround the lake pronounce it with the hard English *t*, and their pronunciation should surely have priority over that of the distant province of Shoa and its city of Addis Ababa. In all districts it would be spelt with the same Amharic letter ጠ. It is obviously impossible to transliterate this letter into English in several different ways; one particular form must be adopted.

"The Permanent Committee for the Spelling of Geographical Names" has been formed for such cases as this. They have consulted the best-known authorities on the Amharic language and obtained from them the most satisfactory transliteration of Amharic letters into English. The consensus of opinion has decided that the ጠ sound is best represented by the English *t*. The P.C.S.G.N. have published this in their lists, and I have accordingly accepted their verdict of Tana. Unfortunately in some of the early reports on surveys of the lake the name has been spelt Tsana. It is difficult to change it in more recent reports, as it would not be clear that the same lake was intended. This difficulty might best be solved by using Tana followed by Tsana in brackets to connect it with previous literature.

For the spelling of other names it would have been highly satisfactory to follow some rule, but this was soon found to be impossible, as I was confronted with hundreds of new names to decide on, most of which had never been written in any language. I have therefore had to be content with representing the sounds as nearly as possible in the English letters.

Another difficulty arose over features which have two or even three names; in these cases I have used the one that seemed to be the most generally known and omitted the others. There are curious instances of dual naming, one being a prominent mountain on the side of the Blue Nile. To the south of it, whence we first saw it, it was known as Jaladura. We passed it a few days later, and the people to the north of it called it Durajela. I pointed this out to an official, and his only reply was: "We call it Durajala".

One finds it easier to deal with names such as New Chicago, which has found a place on a version of an English map I carried, being shown in the wilds of an uninhabited forest. I had to go through the form of enquiry into this phantom city in case it bore some resemblance to a native name, but no local resident had ever heard of it, so I supposed it was the work of some traveller with a bent for humour, or of one possessing little knowledge of correct geographical procedure.

CHAPTER II

THE RIVER AND THE LAKE

THE Blue Nile, or Abbai as it is called in Abyssinia, rises at a spring in the mountains of Sakala district. The importance to Egypt of this great waterway has been recognised throughout the ages.

We have it on the authority of Tellez that "it was said of Alexander the Great that the first question he asked when he came to Jupiter Ammon was where the Nile had its rise, and we know he sent discoverers throughout Ethiopia without being able to find out this source". "Historians also tell us of Cambises that he traversed much land with a mighty army . . . at last he returned with the loss of abundance of men and without finding the spring."

"Julius Caesar was so desirous of knowing this spring that, discoursing in Egypt with that grave old man Achoreus, and enquiring where the Nile had its origin, he went so far as to tell him it was the thing he most coveted to know in the world . . . adding that he would quit his country Rome for the satisfaction of discovering that source."¹

Another Roman Emperor whose interest in the sources of the Nile is recorded was Nero, who sent two centurions to discover them.²

None of these ventures was successful. It must be remembered that in those days it was not realised that the upper Nile consisted of two rivers, the White and Blue Nile, with their sources in different parts of Africa, and

¹ Tellez, *The Travels of the Jesuits in Ethiopia*, p. 12, 1710.

² Budge, *A History of Ethiopia*, p. 112, 1928.

that Ethiopia was a name that formerly had a wide interpretation and was not confined to Abyssinia as it was later and is to-day.

Had the particulars concerning the Blue Nile's course been known in Egypt, one amusing historical episode would never have occurred. A terrible famine which lasted for seven years (A.D. 1066-1072) broke out in Egypt, and it is said that the Khalifa Mustansir b. Iltah, thinking that the Abyssinians had turned the Nile out of its course, sent an embassy loaded with rich gifts to the King of Abyssinia, and asked him to let the Nile return to its old bed.¹ It was, needless to say, beyond the power of the Abyssinian kings or of anyone else to turn the course of the Blue Nile or interrupt the flow of the water, but one could not expect them to enlighten the Egyptians, nor can we blame them for keeping alive such a profitable illusion.

Centuries after, we read that Takla Haimanot I, King of Abyssinia (1706-1708) (not the saint of that name), addressed a letter to the Basha of Cairo, whose Wakil at Massaua had seized the wares of Murad, a Syrian merchant, which were intended for the King, demanding import duty. In the letter Takla Haimanot says: "You have violated the law of nations, as Ambassadors of kings ought to be at liberty to go wherever they will, and it is a general obligation to treat them with honour and not to molest them or detain them, nor should they be subject to pay customs or any sort of presents. We could very soon repay you in kind if we were inclined to revenge the insult you have offered to the man Murad sent on our part. The Nile would be sufficient to punish you, since God hath put into our power his fountain, his outlet and his increase, and that we can dispose of the same to do you harm."²

The first European to see and describe the source of the

¹ *A History of Ethiopia*, p. 279.

² *Ibid.* p. 433.

Blue Nile was Pedro Paez, one of the Portuguese Jesuit priests sent on a political and religious mission to Abyssinia by the King of Portugal. Paez travelled to the mountain of Sakala with the Emperor Susenyos in 1613, and was there shown the spring. His description of it, which is quoted in some detail by Father Jerome Lobo, makes it certain that he actually saw it. As doubts of this have been raised by James Bruce of Kinnaird, the traveller who lived in Abyssinia from 1769 to 1771, and himself laid claim to be the discoverer of the source, I have searched the literature carefully.

Budge unintentionally lends weight to Bruce's claim by saying, on what seems to be Paez' authority, that "The river before it enters Lake Sana is called the Jimma".¹ Actually, the main stream from the spring until it reaches Lake Tana is called the Abbai, and the Jamma is a big tributary which joins it about 30 miles from the source. Lobo² in his account, which is based on the information given him by Paez, gives a very accurate picture of the spring, with descriptions of the Abbai and of the Jamma, which he mentions as its tributary, as also does Tellez,³ who is quoting a manuscript written by Paez and preserved in Rome. Another account by de Almeida,⁴ also derived from Paez, is almost identical. James Bruce visited the sacred spring in or about 1770. He had been appointed hereditary Governor of Sakala district by the Emperor Takla Haimanot II. The King said: "Tell Fasil [one of the King's officers] I do give the village of Gish and those fountains he is so fond of to Yagoube [Bruce] and his posterity for ever, never to appear under another name in the *deftar* [register] and never to be taken from him or

¹ *A History of Ethiopia*, p. 397.

² *A Voyage of Father Jerome Lobo*, translated from the French by S. Johnson, 1789. Another translation was published in 1735.

³ Tellez, *The Travels of the Jesuits in Ethiopia*, 1710.

⁴ De Almeida, *Historia de Ethiopia*, 1662.

exchanged".¹ A church which stands about half a mile from the spring is dedicated to St. Michael and Zarabruk. It had been suggested to me that this name was a corruption of the name Bruce, and the next time I visited the locality I made enquiries. The priests said Zarabruk was a saint but seemed to have no idea who he was. It is certain that Zarabruk was not associated with St. Michael when Bruce was there, as he only mentions St. Mikael Gish in his book.

Beyond the location of its source, very little interest has been taken in the part of the Abbai that flows *into* Lake Tana. I have called it the Small Abbai to distinguish it from the river which flows *out* of the lake and which will be referred to as the Big Abbai, better known lower down as the Blue Nile. Both rivers are called the Abbai by Abyssinians, without any distinctive title, and it is often very confusing. Except that the Small Abbai is the main supply of water for Lake Tana, it has little importance. The general direction of its course was known, but it had never been surveyed, and in consequence its tributaries had been placed in some confusion on maps.

From an engineer's point of view the overflow from Lake Tana at Chara-Chara Cataract near Bahrdar Giyorgis would be considered the source of the Blue Nile. It is here that it commences its long journey of about a thousand miles to join the White Nile at Khartoum, and thence they both flow together yet another 1500 miles to the sea. Within 20 miles of leaving Lake Tana the Blue Nile enters the big canyon among mountains which it leaves about 400 miles lower down, not very far from the Sudan frontier. With one exception no serious attempt has been made to follow the river, and maps of the valley have been compiled from the information provided by travellers who have crossed it at the well-known fords carrying caravan

¹ Bruce, *Travels to Discover the Source of the Nile*, 1768-73, 1790.

routes. The exception mentioned above was an expedition made by an American big-game hunter, Mr W. N. Macmillan, in 1902. He attempted to navigate the lower half of the river from near the mouth of the Muqr River, one of the largest tributaries, to the Sudan. Having brought up steel boats in sections from Jibuti, through Addis Ababa, he had them assembled on the banks of the Blue Nile. Enormous energy must have been devoted to these preparations and a great deal of money lavished on the expedition; but one important precaution was neglected, for no preliminary reconnaissance had been attempted. The boats were wrecked and sunk in a cataract a mile or two downstream. The men escaped with their lives, but the expedition, having lost their boats and stores, returned to Addis Ababa.

At the same time Macmillan had arranged that Mr B. H. Jessen, a Norwegian whom he had engaged, should bring a launch up from Khartoum to meet the steel boats coming down. This venture, after many exciting encounters with rapids above Roseires, was finally frustrated by a particularly difficult cataract at Famaka. The launch did not reach the Abyssinian frontier and was taken back to Khartoum.

Macmillan then abandoned the idea of navigation until some knowledge of the river could be obtained. In 1905 he sent Jessen to explore the Blue Nile with a mule caravan, starting from the Sudan. This time he succeeded in crossing the Abyssinian frontier and followed the right bank of the river until he was forced out of the valley by high mountains and precipices coming down to the water about 150 miles inside the Abyssinian boundary, but still 300 miles from Lake Tana. Jessen describes what he saw of the river in his book,¹ and says that he is of opinion that

¹ B. H. Jessen, *W. N. Macmillan's Expedition and Big Game Hunting in the Sudan, Abyssinia and British East Africa*, 1906.

its navigation by any kind of boat is impossible.

In 1903 Colonel Lewis, a Sudan Political Officer, went from the Sudan up to Wanbera to buy Abyssinian mules. He had followed the Blue Nile for the first part of his journey and made a compass traverse of the river as far as Dabok Ford, which is about 50 miles inside Abyssinia.

This, then, was the position when I entered Abyssinia early in 1926. The 300 miles of the Blue Nile canyon, between the point where Jessen had left the river and Lake Tana, had not been seen by any European except at some half-dozen fords as I have mentioned, and it was with this 300 miles that I had to wrestle.

I had hoped to obtain information from Abyssinians in the neighbourhood, but found that they regard the uninhabited forests of the valley with awe. The canyon has an evil reputation for fever, and they are content to look across the valley from highland to highland without going down below to investigate, crossing if need be at the recognised fords and taking long journeys to get round to them. There was not much to be gained from this line of enquiry, and I had begun to realise that a journey along the valley was not going to be accomplished without a good deal of difficulty.¹

Lake Tana had been seen and described by many

¹ Of the few papers written on the Abbai Valley that proved useful to me, two may be mentioned for the assistance of others: (1) "Notes on a Journey from Zeila to Khartoum," by Oscar T. Crosby, *Geographical Journal*, July 1901. This American traveller gives a short description of the country from Gumar, east of Gum Mountains, through Wanbera to the frontier; (2) "Exploration in the Abai Basin, Abyssinia," by H. Weld Blundell, *Geographical Journal*, June 1906. The author travelled along the country south of the Abbai and made several descents to the river, crossed it once and recrossed it again in the Wanbera district. His narrative is concerned chiefly with ancient history of the tribes and place-names; but the occasional geography and the map were useful. He took some latitudes by sextant, but I was not able to make them conform to mine for the same districts.

travellers. They had passed round the shores and had seen its islands from the land, but owing to the difficulty of obtaining water transport very few Europeans had ever been on the lake and fewer still had landed on the islands. The Jesuit priests who were in Abyssinia in the sixteenth century do not seem to have taken any interest in the islands. It is probable that as Roman Catholics they would not have been welcome in the island monasteries, which are the heart of the older religion of the country.

James Bruce went to Mitraha Island on the east coast and mentions seeing the tomb of the Emperor Iyasu I, who was murdered in 1706.

Rassam, as a "guest", virtually a prisoner, of King Theodore, crossed the water by one of the King's *tankwas* (rafts made of reeds), to the island of Dek in February 1866, and spent one night there. He had no opportunity of obtaining information about it, but gives a general description of what he saw. The island, he says, is ten miles in circumference, containing four villages, with a church attached to each. There are two other islets to the south, and another to the east, which rises much higher above the lake. In the latter is an old church, the monks attached to which never leave their isolated abode.¹

Stecker, a traveller, visited Dek Island in 1881.² He was unable to obtain permission to land on Daga, the reason given to him for the refusal being that it was holy ground reserved for the monks that reside there.

He took some soundings of the lake's depth and says that the greatest depth between the island of Daga and Zegi was 72 metres (236 feet), the deepest between Korata and Zegi 67 metres (219 feet), and between Dek and Adina (south-west corner of the lake) the depth ranged between

¹ H. Rassam, *Narrative of the British Mission to Theodore*, 1869.

² *Die stecker'sche Expedition. Mitt. der afrikanischen Ges. in Deutschland*, 1881, vol. iii. No. 1, p. 12.

32 and 47 metres (104.9 and 154 feet). I took soundings more or less in the same area as Stecker, but nowhere was I able to obtain any depth as great as his; in fact the measurements I took in various parts of the lake point to the water being shallow all over. My deepest sounding near Dek Island was 35 feet, and that was two miles from land. Stecker did a short circular tour of Dek Island and shows two churches on his map, and he also visited some other islands on the east coast of the lake, but was not allowed to land on what he describes as the "priest-ridden" island of Mitraha.

In spite of many inaccuracies, especially on the south shore-line of Lake Tana, I found Stecker's map helpful because there was nothing else. The only literature on the islands that I could unearth was confined to the few paragraphs in the books by Rassam and Stecker.

The framework of present-day maps of Northern Abyssinia is largely based on the work of the French explorer d'Abbadie. He carried a latitude and azimuth traverse from Massaua on the Red Sea to some 140 miles south of the Blue Nile, and although he did not pay much attention to the valley itself, he crossed the river at or near Yekatel Ford and at the ford below Wamet. I have had numerous occasions to check such of his positions as came within my district and have always been able to confirm his extreme accuracy. The names of his hills, however, are often at fault. The longitudes on a survey of this kind have not the precision that could be obtained by astronomical observations in conjunction with wireless time-signals, and a check on the longitudes on existing maps of Northern Abyssinia is still required.

D'Abbadie visited Daga and Dek Islands by *tankwa*, from Korata on the east coast of Lake Tana. This is shown on his map. As his interests were entirely concerned with mapping, he does not seem to have visited the monasteries

or churches, and I could find no account of the islands in his books.¹

A survey round the shores of Lake Tana was carried out in 1901-1903 by the Jean Duchesne-Fournet Mission. The map accompanying their report shows that they crossed the water to Dek Island, presumably to get bearings, and returned, but did not land on Daga.²

Since the great possibilities Lake Tana possesses as a reservoir and the certainty of its eventual inclusion in the whole general scheme of Nile irrigation have become recognised, several expeditions of experts have visited it to study the highly technical engineering problems involved. They need only be briefly mentioned here.

These purely engineering and survey expeditions were led severally as follows:

In 1902 by Mr C. E. Dupuis, acting for the Egyptian Government, and with the sanction of His Majesty the Emperor Menelik.

In 1915 by Colonel H. D. Pearson and Mr A. B. Buckley under the auspices of the Egyptian, Sudanese, and Abyssinian Governments.

In 1920 by Mr G. W. Grabham and Mr R. P. Black, acting for the Egyptian Government.

In 1930 by Major L. B. Roberts of the J. G. White Engineering Corporation of New York, acting for the Abyssinian Government in the interests of the Sudan Government.

In 1933 by Major L. B. Roberts of the J. G. White Engineering Corporation of New York, acting for the Abyssinian Government in the interests of the Egyptian Government.

¹ D'Abbadie, *Douze ans dans la Haute-Éthiopie*, 1868; *Géodésie d'Éthiopie*, Paris, 1873.

² Jean Duchesne-Fournet *Mission en Éthiopie*, 1901-1903, Paris, 1908.

None of these expeditions touched the Blue Nile Valley except in the immediate vicinity of the lake, where their efforts were naturally directed chiefly to the area of the outlet, and except at the fords where caravan routes cross the river on the road to and from Addis Ababa.

A line of precise water-levels was taken round the lake and on the islands for the first time by the survey party of the J. G. White Engineering Corporation in the winter of 1933-1934. This expedition was also the first to use mechanically propelled craft on Lake Tana, as they had brought with them collapsible canoes with outboard motors in which they successfully circumnavigated the lake, which my expedition had accomplished for the first time with *tankwas* in the previous winter.

CHAPTER III

INTRODUCTION TO THE ABYSSINIAN HIGHLANDS

ON my first journey from the Sudan to my Consulate we travelled for the first week through uninhabited forest, meeting no one until we ascended the last climb on to the plateau, where the scenery suddenly changed and we were passing through Amhara villages every half-mile.

The officials had been ordered to receive the new Consul in Abyssinian style, so each chief, whether big or small, was waiting at his boundary to do the honours, and we had an unending succession of ceremonies for the last week of the journey. Some of these men had come long distances and had sent out scouts to inform them of our progress.

On turning a corner the official was seen surrounded by a group of armed retainers, who at a word from him extended on either side, making a half-circle, of which the chief formed the centre. The distance to which a guest is allowed to approach before the chief moves to meet him is considered very important in Abyssinian ceremonial, and is the cause of long and anxious discussion before the event. The next order from the chief brings all rifles to the slope, not necessarily with any degree of military precision. The chief, who would not be considered as properly dressed for parade if he were not armed himself, now hands his rifle, shield, and hat to a small boy. The hat is not an Abyssinian form of dress, but big broad-brimmed grey-felt cowboy hats of European manufacture have caught the public favour in Addis Ababa, and from there have penetrated into country districts, until they may now be considered as part of the uniform of officialdom.

Hatless, the chief walks forward to meet the guest. Throwing the end of his white cloak over his shoulder and placing one foot in front of the other, he gives a low bow from the hip. As the chieftain bows the rows of soldiers bow also. There is no suggestion of servility in this, for a bow is the usual form of greeting in Abyssinia. Two friends meeting in the street solemnly bow to each other before advancing to shake hands or kiss on both cheeks as the occasion requires. A ploughman in the depths of the country will stop his oxen as you, a stranger, pass his fields, and turn towards you and bow, and then will crack his long whip, give a yell to his cattle, and go on turning his furrow. A father returning from market to his home will be welcomed by his children, who, seeing him coming from afar, run to meet him and kiss him on the knee, while he bends over and kisses each one in turn on the cheek.

A servile bow takes a different form and is seen when a serf salutes a man of high rank. He will stand at a distance and bow until the tips of the fingers of his extended hands touch the ground. This may be repeated several times until the exalted one gives permission for him to approach. The serf, when he comes near, will throw himself on the ground and kiss the feet of the noble.

After his stately salutation the chief then addressed me with the formulas of old-world courtesy: "May good health be given you. Does the climate of the highlands suit you? Have you had a good journey?" and then the whole cavalcade moved off. The mule of the chief, with its bright-coloured cloth trappings and silver neckband, was brought, and custom demands that the guest should invite him to mount and ride near him. A vanguard of soldiers on foot ran up and led the way. As the procession moved on, excited orders were given to the soldiers: there were too many in front or not enough; had the messengers been sent to warn the subordinate officials to be on the road as

we passed by? Most of them seemed to be there, for we met them at every corner, each with his own armed guard, which were added to our numbers until our party resembled an army on the march and the narrow mule-track became blocked so that progress was slower and slower. Passers-by coming in the opposite direction were pushed out of the way, and their mules diverted into the forest. This is taken in excellent good-humour and is in fact an accepted part of Abyssinian ceremonial.

A certain amount of brushwood was noticed lying by the roadside, and I wondered what it was there for. It appeared that an order had gone out days beforehand that the track was to be cleared of overhanging branches and thorns, and the grass was to be cut. It is customary to do so when a guest of importance is expected. It is a compliment that is beneficial to the neighbourhood, for it is the only time that these tracks receive any attention, and they all become badly overgrown. Riding along them is a wearying experience, for you have to bend low in your saddle every twenty yards for mile after mile to avoid tree-limbs that threaten to scratch your face, and it is no unusual experience to see a man, caught in an unwary moment, pushed backwards over the tail of his mule by one of the branches.

A camp was suggested where there was water and good grazing and level ground for the tents. The chief waited to see the camp pitched and he himself assisted in the erection of the guest's own tent. After that he moved with all his followers to the shade of a tree, where till sunset he took the opportunity of carrying out any Government work that required his attention, and then went towards the nearest village to find food and lodging for the night.

A trumpet resembling a hunting-horn had been blown so that all might know that a Government official had arrived in the neighbourhood, and the chief's men had gone to adjacent villages to tell the peasants in the name of

the Governor of the Province, whose letter and seal bore witness, that they were required to bring food and drink for the guest and his men. After darkness fell, a procession of men and women from the villages arrived in the camp bearing baskets of native bread and jars of beer, an ox if the neighbourhood was rich, or if poor, a sheep or two, chickens and eggs. Our journey developed into an unending succession of feasts for my men. We camped at a different place every night, and each evening this bountiful meal was provided.

It might seem a heavy burden on the agricultural population, but it is not really so. Food is cheap, and the provision of food for travelling parties has been a custom of the country for untold ages. Taxes on land are lighter in consequence, as the food given on these occasions is reckoned in them, and I have even known instances of villagers whose pride was wounded when they were not asked to supply it. Moreover, it would be impossible for Abyssinian Government officials to move through the country unless provision on these lines were made to feed them and their staffs, for Abyssinian servants receive food and clothing but no regular wages, and even if the men had money they could not buy anything, since there are no shops in the provinces.

My case was different, as my men were receiving regular pay and carried food with them on my mules, so they did not require these doles, but I found it very difficult to stop them being sent. In some villages I tried paying the headman in the presence of the rest of the people for the food they had sent, and sometimes I refused to accept the gift; but I cannot say I succeeded in putting an end to it. In the first case it is doubtful if the peasants who supplied the food got their share of the money, and in the second it was probable that they thought that I considered the things they had brought were not good enough.

We had with us a young man who was returning to his home from a visit to the Sudan and had asked to be allowed to accompany us. Near the village we came upon a large herd of mixed cattle, since each peasant owns two or three cows and working oxen that go out to the pasture together in the charge of a few small boys. As we passed among the cows the young man, recognising his own among hundreds of others, went up to them and, raising their heads on his hand, kissed each one on the nose.

One of my first duties after our arrival in Dangila was to despatch a courier with a message, written in Amharic, to His Highness Ras Hailu, Governor of Gojjam Province, who lived in Debra Markos, his capital. The opening sentences of an Abyssinian letter vary little. They are: "To the honoured Ras Hailu. How are you? I, thanks to God, am well. I have the honour to send you my salutations." Then follows the main part of the letter, and it ends abruptly without signature, but with the seal of the sender. The result is that, if you do not know the seal, your only chance of discovering who the sender is will be to ask the man who brought the letter.

In my letter I informed His Highness that I had arrived in Dangila and would now start on my way to call on him, a ten-days journey by mule. In ten days my messenger returned with a reply, beginning with the same formula that I had used and saying that Ras Hailu was looking forward to my visit and had sent an officer and an escort to accompany me. The Abyssinian messengers travel from one end of the country to the other carrying a letter in a cleft stick in front of them. Thus exposed, it acts as a talisman. A letter and letter-carrier command a superstitious respect and they are seldom interfered with even by highwaymen. Although the men are called runners, they do not run, but walk at a quick pace and average twenty-five miles a day over long distances. In uninhabited

forest the nights are spent on platforms of branches built up in trees out of the reach of wild beasts. The men tie themselves on with the stems of creepers to avoid any possibility of falling off while they are asleep.

My stock of mules had got low and it became necessary to buy about twenty new animals. Mule-breeding from a mare and male donkey is one of the industries of the farmer on the plateau, and there were plenty to choose from; but mules that have been broken to packs cannot be obtained at a moment's notice and I had to accept fifteen that had not been broken. Our departure would have made a successful turn at a rodeo. To see an Abyssinian muleteer handling an untamed mule is to see him at his best. They are marvellous at controlling them; but on this occasion there were too many to be dealt with at once, and my boxes were soon going over the horizon on a galloping mule with men in pursuit, or crashing against low branches as a mule darted like a stag through the undergrowth, or mules, men, and packs were turning somersaults on the ground. We were several days on the road before they all settled down. For the last fifty miles we pitched camp each day beside Ras Hailu's rest-houses. He has them scattered along all main tracks so that when he tours his country he can sleep in comfort under a roof.

When we were within three days of the capital I wrote again to Ras Hailu to say what day we should arrive, as he had asked me to do. An official of his household brought the reply, and with him came several servants, bearing delicacies; a gardener offered grapes and bananas, rare fruits in Gojjam; a glass decanter containing a vintage hydromel or honey-wine from the Ras's cellar, and wrapped in a silk cloth, was brought by a household servant; and another came with a dish of honeycomb. This was in addition to the nightly present of food supplied by the rest-house staff or the villages.

The last camp was arranged about three miles from Debra Markos, so that I could ride in early in the morning to the spectacular reception Ras Hailu was staging. In the evening I dined to the music of his band, consisting of negro musicians (Abyssinians not being considered to be sufficiently musical for the part¹), who made weird but not discordant sounds on long coach-horn-shaped instruments and reed-pipes.

All the evening and early next morning messengers on galloping horses came and went between the camp and the Palace making last arrangements. Officers from outlying districts on tripling mules, surrounded by a few hundred armed retainers who had to run to keep up with them, were constantly passing and hurrying into the town in obedience to the summons to attend at court.

I had dressed in uniform and awaited the arrival of an officer, who according to the plan would come and tell me when to start. Soon over the brow of a hill a line of at least a thousand cavalry and infantry was seen approaching. The cavalry, mounted on horses, were dressed in cloaks of bright colours and carried shields of buffalo hide and long spears. The infantry had rifles and wore the white Abyssinian dress. They halted opposite the camp, and the officer in charge, a Fitaurari, the equivalent of a colonel, dismounted and came forward, and with a low bow presented the compliments of Ras Hailu and announced that all was ready if it was my pleasure to come now, adding that His Highness was looking forward with impatience to the moment when we should meet. I mounted my horse, and my own personal escort of three Sudan Police followed on mules, putting up as brave a show as possible consider-

¹ The Amhara are, however, very fond of whistling. They do not, like Europeans, repeat a well-known refrain, but compose a tune of their own as they go along. The ploughboy as he turns his furrow will whistle loudly to himself and to his oxen all day through.

ing they were so hopelessly outnumbered. Their well-cut khaki uniforms and smart drill movements caused many approving glances to be cast in their direction from the ranks of the other side.

We joined the troops that were lining up on the road, a band struck up a well-known Abyssinian processional tune, the brass instruments like bugles vying with the long Abyssinian horns, and we all moved towards Debra Markos across great rolling plains of grass, grazed short by herds of fine cattle, sheep, and goats.

In three-quarters of an hour we were near the Palace, which stands up conspicuously on the top of a hill. It consists of a large rectangular banquet-hall in which three thousand chiefs and retainers can sit down to a meal. The other houses are separate rooms built close together in courtyards enclosed in fences. The Palace grounds comprise the whole hill, which is divided into courtyards several hundred yards wide, each one surrounded by a high wall of rock blocks laid without mortar, the top protected by branches of stout thorn-scrub woven into the rock. Massive wooden doors in a roofed porch give entrance to each court. In the distance the slopes of the hill had shone white, contrasting with the greens and browns of the landscape. Now that we were nearer we could see that the whole hill was packed closely with masses of men in newly washed white clothes. There were thousands and thousands of them. The doors of the first court were open and I rode through, the escorting troops remaining behind. Other officials came forward, bowed, and led on up the hill. We passed up a lane the sides of which were formed of ranks of men twenty deep, most of them with rifles. We entered the second and third courtyards where, if possible, there were more men still. We were now at the top of the rise and were passing from the public courts to the private and residential apartments.

Here we were met by the Agafari or Chief Chamberlain, a grand figure, with black fuzzy hair standing straight up a foot above his head and most carefully trimmed. His swaggering walk and his every movement spoke of the importance of the position which he held, and at his belt in its sheath swung the longest curved sword that it is possible to imagine. He asked me to dismount, and the horse was left behind with the Sudan Police while we walked on between more lines of soldiers and servitors. The dignified Agafari strode ahead; it is his privilege and duty to clear the way. It is difficult for an Abyssinian to make up his mind to any particular line of action, and in a parade of this kind someone always finds himself in the wrong place and makes a dash for the other side of the road at the last moment. It may be reckoned as part of the ceremony, for the Agafari carried a cane and with a sudden agility darted on a man who was crossing and administered several shrewd whacks on his person before he could dive into the ranks of the soldiery and disappear.

Ras Hailu left his room as soon as I had dismounted and came across the open court to meet me. Introductions were made by my interpreter, although they were hardly necessary, and we shook hands. The Ras, keeping my hand in his, led me to his reception-room, where we found a throne placed at the top with two rows of chairs arranged on each side down the room. I was shown to the chair on his right and he sat on the throne. He was wearing the dark official cloak of Ethiopia, with an extensive display of medals and foreign decorations, among which I recognised the K.B.E. His legs were clothed in tight-fitting white breeches and he wore European shoes. My translator stood in front of us to interpret, and the other chairs were filled by his officers of high rank, to whom I was introduced. Conversation was confined to polite enquiries and generalities, and the Ras suggested that we should meet and

talk business some other time, so after ten minutes I took my leave.

In the meantime my camp had been brought in and pitched on a grass plain near the town, where rows of guest-houses of wood and thatch had been built for the accommodation of chiefs and officials visiting the Governor. Each compound was surrounded by a thorn fence. The tents erected for me were of European make, but had been worked inside with coloured patchwork in Eastern design, and the floor was covered with carpets. The effect was most luxurious and exotic.

Presents continued to arrive. In the evening a chattering bevy of maids from the Ras's household brought a hundred flat loaves of bread, five jars of beer, five pots of honey-wine, twenty eggs, three chickens, a pot of fresh butter, a pot of red pepper, a pot of honey, red and white onions, a fat bullock, and a sheep. A page presented some quaint wax tapers two feet long made of beeswax melted on to a long cotton wick, and there were bananas, peaches, sticks of sugar-cane, and bundles of firewood. The mules were not forgotten, as they had bundles of hay and bars of salt. Salt is lacking in the soil of the plateau, and all cattle crave for it. Most of the items are carried by different servants, each of whom expects and gets a present at the end of the visit; but there are no other expenses, so travel under these conditions is very cheap indeed.

The next morning there was an atmosphere of suppressed excitement among the men in my camp, as it was known that Ras Hailu would return my call some time during the day. A messenger galloped up to say that the Ras wished to see me and asked what time would be convenient. He was riding out to inspect some houses that were being built and would return at two o'clock; so two o'clock was decided on. I could not expect to compete with him in display, and could only turn out my three police to present

arms. Another messenger was sent at two to say that His Highness had been delayed and could not arrive until four. A heavy thunderstorm came on as he was seen approaching across the plain, and yet another message was sent to let me know that he had been soaked by the rain and was returning to his house to change his clothes and would be with me shortly. For the second time during the afternoon I got into uniform and awaited events. Soon after, a band struck up at the gate, and the Ras was seen riding a mule and accompanied by his cortège coming over the plain. A few officials were also riding mules, and the rest of his following were running beside him on foot.

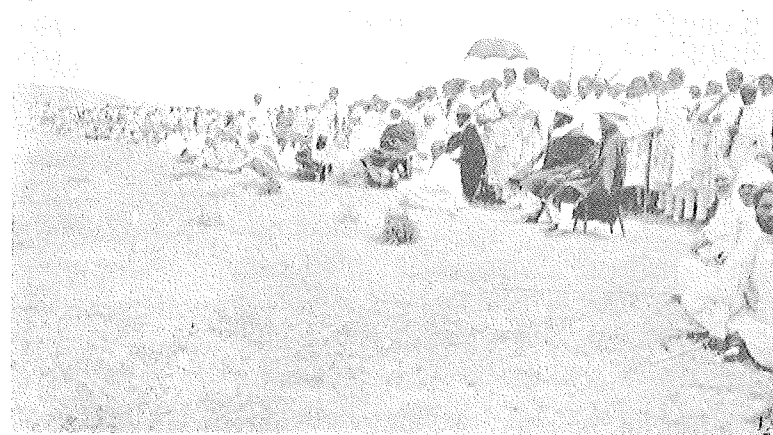
I went down to my compound gate to receive him. He dismounted when some distance away and walked the rest of the distance, and we went together to my reception tent. He drank coffee and liqueur brandy and a whisky and soda, and ate some crystallised cherries and preserved figs, but refused a cigarette. I did not realise then that no Christian Abyssinian of any class smokes: there is no religious ban on smoking tobacco, but it is not the custom of the country, and for the future when entertaining Abyssinians I did not offer cigarettes. He told me that it was then the middle of the Lenten Fast and that in Abyssinia the fast lasts for the forty days as in Europe, but another fortnight has been tacked on at the end. On fast-days they do not eat till noon, and then will not touch flesh or food cooked with animal fat. Their own meals are prepared with vegetable oils.

To entertain him I showed him the collection of bird-skins that I was making, and he said he would get some for me. This he did with more success than I expected, for among the birds that he sent me was a very rare Francolin (partridge), of which a single specimen in the Natural History Museum was the only one known.

I opened my campaign for obtaining permission and his

support for my contemplated journey down the Blue Nile. He said he would have to telephone for sanction to Addis Ababa. I also enquired if it would, in his opinion, be possible for me to float downstream by boat, and he replied that the only traveller who tried it got his boats smashed in the rapids. This, I knew, referred to the Macmillan Expedition. He also said that it would be impossible to travel alongside the river-banks on account of the cliffs and rocks, and he advised me to go and look for myself and form my own opinion. Although his account and his attitude towards the project did not inspire much hope, I did not realise then that he was doing all he could to dissuade me from the attempt. While I was in Debra Markos he had received a message from Addis Ababa informing him that the Abyssinian Government had given their consent to the journey, and he had replied by telephone advising them to reconsider their decision, as he did not want the responsibility if anything happened to me. All this he confessed to me a year afterwards when I met him in the middle of my first Abbai reconnaissance. On the same occasion he explained that his offer to show me the canyon was also a ramp, as he had a particularly bad part of the cliffs that he showed to travellers who expressed a desire to follow the Blue Nile, which he had never previously known to fail in its object of making them postpone the project indefinitely. Before he left my tent he said that his young men were holding equestrian sports on the plain near by, and he hoped I would attend.

I joined them soon after, and found a great number of spectators standing in a long line. In front of them was a level course of short turf on which horses and riders were furiously galloping to and fro, the scene resembling a race-meeting. In the centre of the spectators was Ras Hailu, seated on a chair, with a man behind him holding an umbrella. There was a chair beside him for me, and a



HIS HIGHNESS RAS HAILU, UNDER UMBRELLA, WATCHING
SPEAR-THROWING AT DEBRA MARKOS



GISH ABBAI SPRING, SOURCE OF THE BLUE NILE (p. 70)

few others were placed a short distance away, on which officials who were of sufficiently exalted rank to sit in the presence of their Ras were watching the games.

The rules, if there were any, were not easy to grasp. No scores were recorded and the skill of each individual ride seemed to suffice without collective competition between teams, although there were two sides. Both teams were mounted on horses and were armed with long straight canes which they threw as spears, and carried shields. Each side advanced in turn. The attackers gallop after the others with horses fully extended, each one taking a man and trying to throw the shaft to hit him. The defenders gallop slowly ahead, turning round in the saddle and fending off the shaft with the shield held in one hand, or by wheeling the horse quickly to the side with the other hand. Some men were decidedly skilful and got hits when the horses were a hundred yards apart, and one realised that in battle their spears would do great execution in the ranks of a flying enemy. The difficulty and technique of successful spear-throwing were appreciated by the crowd, and good hits were loudly applauded. The flight of the white shaft was not straight from the hand of the thrower to the target, but described an arc thirty feet in the air, and when it descended quivering and struck the victim between the shoulders, as many did, it seemed little short of a miracle. After the shafts had been thrown, the other side became the attackers. There was one spill when two horses cannoned and their riders were thrown heavily, but no one was hurt.

The next day was Sunday, and I was invited to lunch with His Highness, and as it is the custom of all Governors to attend a parade service at church every Sunday morning, he hoped I would join him at the service first and return with him to the Palace, where he had invited two thousand people to meet me at lunch.

On the following morning at half-past seven, fifty riflemen and fifty unarmed servants arrived to accompany me. Ras Hailu was awaiting me at the church door with an army of close on two thousand men. He took me by the hand and led the way through the open door. The church was dark after the bright sun outside. We entered a passage that encircled the building; farther in the interior a few singers were chanting but were hidden by curtains. The whole of the interior that was visible was covered with wall-paintings and Abyssinian pictures. We followed the passage until we were opposite the main doors that shut in the Holy of Holies, the centre division in the circular churches of Abyssinia.¹ The doors were draped with curtains, and with an entrance from behind and wooden steps in front the effect was that of a small stage. On our right was the tomb of Takla Haimanot, the last King of Gojjam and the father of Ras Hailu. In the past there were several governorships of provinces in Ethiopia that carried the title of Negus or King, and the succession to them was hereditary, but had to be confirmed by the Emperor. This gave the ruling Emperors of Ethiopia a reason for calling themselves Negus Negast, or King of Kings. In recent years as the Kings have died no others have been appointed in their place, and the title of Ras is the highest that is held by the nobles.

In front of the doors of the Holy of Holies two chairs had been placed, and it was explained that one was for the Ras and one for me. We did not sit, however, but stood facing the doors and waited. Presently a small boy, a satellite called a deacon or apprentice to the priesthood,

¹ The three concentric divisions of a circular Abyssinian church are the *taza*, the outside circle where the people congregate; the *kidist*, the second circle where more select members of the congregation assemble; and the third or centre division, the *kidist kidisan* or Holy of Holies, in which the replica of the Ark of the Covenant is kept. This is screened off from the rest of the church, and only the priests are allowed to enter.

appeared through the door, carrying a pink parasol, but before he could pass he was pulled suddenly backwards by an unseen hand and disappeared; apparently his entrance had been premature. Then three priests came in clothed in vestments of bright silks and satins, one holding in his hands an Abyssinian cross of silver washed with gold. The pink parasol and the little boy appeared once more and he stood beside the priests. The priest with the cross recited by heart part of the lesson of the day, speaking in Giz, the classical language of Ethiopia. It was Palm Sunday according to the Abyssinian calendar, but it is called the "Holy Day of the Mount of Olives". According to our calendar it was Easter Sunday 1926. The recitation took about three minutes, and the priest walked forward towards Ras Hailu, who bent forward to be touched on the forehead with the cross, which he then kissed. The Ras explained that this Sunday is considered as a break in the middle of the long fast. It is not a feast-day, but a certain amount of relaxation of the strict fast is allowed.

We left the church and mounted our animals at the gate. Ras Hailu was riding a mule—it is rare to see an Ethiopian of any standing riding anything else, although they own plenty of horses and mount their escort on them. He was a big man, and astride the enormous grey mule that carried him now he looked bigger still. It wore a gold open-work neckband and was almost concealed in bright-coloured trappings. We went in procession through Debra Markos, headed by the band, which after its rest sent out an amazing volume of sound. As we approached the entrance gates of the Palace I noticed a large pile of rocks heaped on the turf near by. It appeared that the Ras was building yet another house and had taken the opportunity of the banquet to get the rocks carried up the hill to the site. Each of the two thousand guests was invited to shoulder one of the rocks, and we waited to see them load up. The pile diminished

rapidly, and the long line of men each carrying a boulder, and incidentally earning his lunch, looked like a string of ants. The pile of rocks at the top of the hill grew as the lower one diminished, and in a few moments and at no expense the whole mound had been transported from the bottom of the hill to the top.

We then entered the Palace gates and rode up through the three courts, the route lined on both sides with riflemen as before. Ras Hailu explained that they all came in to Debra Markos for a month in the year for training, and then returned to their distant farms, others taking their place. They were, in fact, militia. As we came to the courtyard gates there was a tremendous crush. There was pushing and shoving and it looked as if a free fight might break out. The gate guards seemed to have received conflicting orders. They may have been separating those with invitations to the lunch from those who were trying to pass in uninvited, but they seemed to be using their canes on all and sundry. The Ras and I had to wait until the crowd dispersed and a way was cleared for us. He was erecting a big pretentious building with large rectangular rooms, an unusual form in Ethiopia, where most houses are circular; one room he called the salon. He said he was his own architect and employed his own builders to carry out his designs, which were evidently inspired by his recent visit to Europe, as he had accompanied Ras Tafari, the Regent, on an official mission to Rome, Paris, and London. His experiences and impressions, narrated with a racy flavour and not a little humour, were most entertaining. He had not enjoyed the English Channel crossing as he had lost his breakfast overboard. One of the recollections of the evening when they dined at Buckingham Palace was that they had eaten off gold plate, which seemed to have made a great impression. A morning in London, when he had faded away unnoticed,

leaving his attendant English squires behind, and had done some shopping entirely on his own, was a joyful memory, and the fact that he had been able to raise a temporary personal loan with an English bank while in London was a source of immense satisfaction to him, more particularly since it was known that another member of the Mission, on hearing of it, had gone off hurriedly to the bank to try and do the same by announcing that he wanted to borrow some money and had no security but was a prince. The reply of the bank manager, "You look like a prince but you talk like a child", was recounted with great gusto.

The walls of the new house were three feet thick, made of rock blocks consolidated with wet mud in place of mortar, with wooden window-frames imported from Addis Ababa. The building was to be of three stories, supported by stout wooden beams, and the whole covered with a corrugated-iron roof. Windows, houses of more than the ground floor, and corrugated iron, were all three innovations in Gojjam. One room was decorated with a wall-painting by an Abyssinian artist, showing portraits of the aristocracy of Ethiopia. In the middle was Ras Tafari, the Regent; on his right were Ras Hailu and other Rases and nobles. Another decoration was a fresco of paintings copied from photographs of all the places Ras Hailu had visited in Europe, such as the Eiffel Tower and a bridge over the Seine in Paris.

His little son and heir, Mamoo, aged about eight, was sent for and came in with his tutor, a man who had been educated in Addis Ababa. The boy proudly displayed an English primer from which he read short sentences, such as "The cat can see the rat", until lunch was announced. An Abyssinian servant does not speak out loud but comes behind his master's chair and makes his communication in whispers, which is considered more respectful.

Lock of culture in signa

We went to the big banquet-hall, where it is said five thousand can be fed. I think three thousand could certainly be seated there, as the guests in the body of the hall sit on the floor packed closely together in rows. The portion we occupied was curtained off from the rest. Ras Hailu sat on cushions on a raised dais, and I sat at a table on the left which was specially provided with a white tablecloth and knives and forks. The big curtains sometimes blew aside, giving a view of the as yet empty hall, and a glimpse of rows of tables, so low that men could sit on the floor and eat off them, which filled every available space except the centre, where serving-men moved to and fro.

Any of the Rases, if entertaining European guests, would be able to give, and would give, a meal on European lines—some of them give a very good one—but I had asked to be invited to one where everything was carried on exactly according to Ethiopian custom.

A table was brought in and placed in front of the Ras. Native bread, or *injera*, soft circular flaps made from millet, strewed the table, and a pile of them was arranged in front of him. On the pile of bread various dishes were emptied as on to a plate (the old English trencher, in fact), the Ras eating with his fingers. As it was to all intents a fast-day, he could only eat vegetarian foods, but I was provided with a special menu of sixteen courses of excellently flavoured meats, hashes, and puddings. Before we commenced, a man swinging a smoking censer of incense moved to and fro scenting the room. A chamberlain stood on each side of the Ras, supplying his needs, and behind them there were two stewards who brought native drinks, *tej*, or honey-wine, and *talla*, or barley brew. Each man poured a little from his bottle on to the palm of his own hand and drank it before filling for his master, as a precaution against poison. Glass toilet-bottles are used as

decanters for these drinks. As the Ras drank, men held up shawls so that no one could see him until he had put his glass down; a ceremony that is observed throughout the country, which aims at privacy but also draws attention to the frequency of the sips.

When he had nearly finished, three hundred of the more important officials came in under the curtain, filled the nearest tables, and began their meal; and as part of the entertainment two dwarfs were admitted. One was twenty-five years old but looked only ten. They were the Ras's mascots and were privileged to walk about where they liked, and everyone joked with them. A jester was another privileged person who was there to amuse the guests. He can say what he likes to anyone, and his wit and repartee were received with roars of laughter.

Now every known variety of drink in every shade of colour from scarlet to blue was brought and offered to me, including champagne and red and white wines from Europe, and spirits of two kinds, both distilled locally from honey-wine, one flavoured with peppermint and the other with aniseed, which were specially recommended to me. I tried them all—there was no alternative. With such a mixture I was trying to “go slow”, but my host would have none of it. Although fully occupied with eating himself and directing the servants in their duties, he kept an eye on my forest of glasses, and if one remained for some time at a steady level he would turn to me and remark with a pained tone in his voice, “You do not like our *tej*, or beer”, and one had to show appreciation in the usual way. Black coffee followed, then the curtains were pulled back and the rest of the hall was filled by the guests of lower rank. They trooped in in batches of a hundred each, and blocks of seats were systematically filled. Their tables had previously been covered with bread-flaps. I do not think any other food was served; had it not been for the fast,

beef would have been added. *Tej* was passed round freely. Three minstrels stood at various places about the room with their backs to pillars and played on native-made fiddles with bows that justify the name by being bow-shaped, and sang songs of love and war that had been sung there for hundreds of years, varied occasionally by compositions of their own in praise of Ras Hailu and of me. A priest arose in the middle of the hall and recited what seemed to be a grace.

After the Ras had finished, the men who had been serving him were summoned and ate in front of him. He called to the head steward to come close, and after requesting me to watch, made him throw back his head and open his mouth wide. Then grasping a large wad of food in his hand he thrust it into his servant's mouth, completely filling it. Two men holding brass candelabra with lighted candles had stood on each side of the Ras's table throughout the meal.

While this banquet was in progress Europe seemed millions of miles away on another planet, and I had the greatest difficulty in realising that the year was 1926, and that I was not a guest at a feast in the Middle Ages.

Two days later it was my turn to entertain Ras Hailu, and he came to lunch in my reception tent. The food was of necessity supplied mostly from tins, and as no meat could be offered, the only dishes the cook could prepare were vegetable soup and vegetable curries cooked in olive oil. Abyssinians pride themselves that they can eat hotter foods flavoured with red pepper than most other people, and after warning Ras Hailu of the potency of Tabasco sauce, I offered him some. He helped himself bravely and as bravely praised it with tears streaming from his eyes, saying it was not unduly hot. He then asked if he might invite in one of his old officials who had a great reputation for being able to swallow the hottest foods without flinch-

ing. The patriarch arrived in the tent and squatted on the ground beside his lord, who told him to hold out his hand, into which he poured a liberal portion of Tabasco and asked him to drink it. I had to intervene, and advised him to be cautious, but even then he licked up sufficient of the liquid on his tongue to make him choke. "Ah!" he said, muttering to himself, "ah, I can truly say that is the 'Mother of heat'."

The next day my mails from Europe arrived from Gallabat, my nearest post-office. It took six days for the two runners to go down from Dangila and six or seven to return, and I only got my letters once in a fortnight. In this case they had had an extra five-days journey to bring the bags to Debra Markos, and another day's delay had been caused by four armed highwaymen who had stopped the men, cut open the mail-bags and searched them for money, but finding none, had returned them with all the letters. Letters and cheques are of no value to an Abyssinian, and I never sent cash or valuables in the bags, and it is a surprising fact that during nine years I never lost a letter on this bandit-infested road, although we had occasional delays caused by the annoying attentions of these men, who several times relieved my runners of the small parcel of food they were carrying, and once even stole their trousers so that they had to wait in the forest and enter Gallabat under cover of darkness.

On the eleventh day of my stay in Debra Markos I went to lunch with Ras Hailu's only daughter, the wife of the deposed Emperor Lij Iyasu. Her name is Waizero Sabla Wangel, and she has a separate house and *ménage*. I was ushered without ceremony into a room into which little light could penetrate, the ceiling being supported by thick beams and painted over with designs of men and horses by Abyssinian artists. A horse and cart, a conveyance unknown in Gojjam, formed the subject of one picture. I

asked a chamberlain where the painter had seen one, and he said he had been told about them, and his imagination had supplied the rest. As my eyes got accustomed to the gloom, I saw a little dark woman reclining between two cushions on the floor, her figure draped in clothes in such abundance that her form could hardly be distinguished. She was not plain and not beautiful, and both complexion and eyes were dark. She got up to shake hands, and I was given a chair on her right; on her left were two chairs occupied by two patriarchs, one a farmer and the other a soldier, who were continually reminding each other of the importance of themselves, or rather the importance of their own calling to the State. This seemed to fill up gaps in the conversation, which at times was inclined to flag. Behind the lady of the house were squatting half a dozen female servants, and one stood beside her all the time to take her orders. Behind them as a background stood a four-post bed; a bedstead is the usual centre-piece of furniture found in the reception-rooms of Ethiopians of high degree.

When my hostess sneezed everyone bowed low towards her. I did not, at the time I was there, realise that I was being entertained by a lady who a few years before had been Empress of Ethiopia, and might still have been if her husband had had sufficient balance to hold the throne, and my question "Had she been to Addis Ababa?" where she once had reigned, must have seemed to her unnecessarily unkind. She acknowledged rather coyly that she had lived in Addis Ababa. We got on better on the topic of motor-cars, for she had been for her first ride in the car that her father had recently had put together in Debra Markos, but it had made her head ache. It was possibly, she thought, moving over the country so fast, and it might have been her own fault for looking at the ground too much as they went along.

A table was brought and I ate and drank alone, as all the others were fasting, but she joined me in a glass of champagne, her maids shielding her from view with shawls while she drank. Coffee followed, brought in and served by an enormous negress. I liked her coffee better than that which I had with Ras Hailu, which tasted as if salt had been added, while this had a sweet flavouring.

During my visit a most violent thunderstorm broke over the house, and my departure had to be delayed on account of the rain that came down in sheets. Waizero Sabla Wangel had one child by Lij Iyasu, a small girl. The picture of this woman and her child, who through no fault of their own were destined for a life of loneliness and obscurity, was pathetic. Had her royal husband ruled more wisely and retained the loyalty of his subjects, she would instead have been in the Palace in Addis Ababa, surrounded by pomp and circumstance, and the child would have been heiress to the throne of Ethiopia.

My stay in Debra Markos had not been solely occupied in entertainment: the Ras and I had been meeting to discuss frontier administration and other official business connected with my post. One case in particular had occupied a good deal of time and concerned one of his chiefs, who, an old elephant-hunter himself, had been allowing parties of Abyssinians to go through his district into the lowlands to shoot buffalo, giraffe, and elephant. Game is scarce on the Abyssinian side of the frontier and they had made annual expeditions into the preserved and well-stocked forests of the Sudan. Ras Hailu wanted his chief brought to Debra Markos to be tried before him and me, so that we could hear more evidence. I, on the other hand, had all the evidence I wanted, extending over many years, and insisted that the only way to bring peace to the border was to have the man removed from his governorship and district and sent far away from the frontier where

he could do no harm. Eventually, not without delay and difficulty and the exertion of a good deal of pressure, I carried my point, and from that time onwards my section of the Sudan-Ethiopian frontier, where raids into Sudan territory by Abyssinian elephant-poachers had been annual events, enjoyed tranquillity to a degree that it had never known before.

After a fortnight in Debra Markos, I left to return to Dangila, as it was an equally long road to Debra Tabor, where I was due to make my official call on Ras Gugsa, Governor of the big province of Bagemdir. Although the two Rasés are very different types of men, the ceremonial of my reception was very much the same, as in fact it would be with a Ras anywhere in Ethiopia.

Ras Gugsa Wolye was the husband of the reigning sovereign, the Empress Zawditu, who had contracted this morganatic marriage before she became Empress. The State wanted her, as the daughter of the Emperor Menelik, to ascend the throne, but they did not wish to have Ras Gugsa as prince consort, so the husband was sent out to live in the distant province of Bagemdir to rule it as its Governor. He came of one of the aristocratic families of his province. I found him pompous, a monk at heart, but hospitable and human, with a sense of humour and a scarcely veiled dislike of the foreigner, in spite of which he gave me a smiling welcome. We were soon on terms in which we could chaff each other, and during one of our meetings concerning the efficient regulation of the customs-post on the frontier I mentioned the Sudan Government. He said: "You are always talking about the Sudan Government. I shall call you the Sudan Government Consul, not the British Consul." It happened that in one of the letters he had sent me on the road his clerk by a slip had addressed me by name correctly but had put "The Italian Consul". The opportunity was too good to miss, so I replied that I

did not care which he called me, but he must not call me the Italian Consul. He said he was not likely to do that. To my reply, "You have already done so", he said he would not believe it until I proved it. The affair developed into a kind of bet. I took my letter-case and turned over my numerous letters written in Amharic, but nowhere could I find the note. All the courtiers standing round now became interested, and broad grins stole across their faces, and Ras Gugsa excitedly said: "I knew it! I knew you could not find it." At last, after a second search, I came upon it and gave it to him to read. The smile faded from the faces of the courtiers. "Send for my clerk", said the Ras in furious tones. I explained to him that I was quite unconcerned at the clerk's mistake. He himself had started the joke and I had gone on. The wretched clerk came in and was given the letter, in addition to a lot of advice, and was sent out. I was relieved a few days later when I received a letter from the Ras written in the same clerk's now familiar handwriting.

"I must compensate you for this now", said the Ras. "I am told that you have some tired mules, and you shall have three of the best pack-mules that there are in my stable." Next day grooms came round with three beautiful animals.

Ras Gugsa had a passion for building new churches. He spent all his spare time and money on building them round Debra Tabor, where there were already plenty of churches for the people's needs, and it seemed to me his resources would have been better expended on the many old churches in Bagemdir that were badly in need of repair. I was invited to see his latest architectural effort, the church of Inatu Mariam, the Mother of Mary. The Ras was waiting me there and proudly showed me over it, climbing and stumbling over piles of rock that were dumped there awaiting the attention of the masons, so that we both narrowly escaped sprained ankles. Swarms of

retainers dashed here and there, getting in everyone's way. After exhausting all the ground-floor and having the plans for the rest of the building explained in detail, I saw a crazy ladder that led up to the top of the unfinished tower. It was made of two trees, forming the sides, and the steps were branches lashed horizontally with creeper stems. It was quite the most unsafe-looking ladder that could be imagined. In an unguarded moment I asked the Ras if he would climb it, thinking he would certainly refuse, for his somewhat rotund figure did not lend itself to such acrobatic feats; but, quite undaunted, he began to climb without a moment's hesitation. I had no opportunity now of backing out, and the chances of escaping a nasty fall looked no brighter for either of us when fifty servants sprang after him, swinging like monkeys themselves and holding his hands and guiding his feet on to the safest timbers. I then discovered he was wearing a pair of European-made shoes, the shiny soles of which rendered them the last thing to wear when climbing. The scaffold at which we were aiming was of the same precarious construction, and the Ras, who is fat and sixty, was gasping when it came to scrambling from the ladder to the platform. I felt certain he would slip and roll to the bottom, fifty feet below, sweeping all his officers and me off the ladder in his descent, but we got up and looked out of the circular hole in the tower, where the big round metal-covered top was being lashed ready to fix in position. There certainly was a fine view of the country all about, and in returning to earth I delayed until the Ras had started, thinking that if we were going to fall I should be the last one to arrive and should have a soft cushion of humanity to land on.

The Ras said he had only one desire, and that was a clock to build into the church wall, and he asked if I could help him to get one. I was eventually instrumental

in finding and sending him a clock, but I never heard whether it was erected in the church.

Ras Gugsa's end came suddenly three years after this, for he became involved in a foolish revolution against the Central Ethiopian Government. After seeing him climb the ladder I was not surprised to hear that he died bravely, refusing to surrender and facing his enemies. During my first call on him he had shown me a wall-painting, in one of his churches in Debra Tabor, of himself arriving in Heaven. The Virgin Mary was seated to receive him as he galloped up on his war-horse accompanied by rows of his soldiers.

CHAPTER IV

THE CONSULATE OF NORTH-WEST ETHIOPIA

DANGILA, where I first made acquaintance with Abyssinia and its people, stands at an elevation of 7335 feet above sea-level. At this altitude in Ethiopia the climate is cool and bracing and resembles sunny days in September in England, although it is only a little over eleven degrees from the Equator and the sun at noon seems vertically overhead. During the six dry months from December to May the sun shines from its rising at 6 A.M. to sunset at 6 P.M., and the length of the days varies little in summer and winter.

At dusk a log fire is welcome all the year round, and there is plenty of wood to be obtained for the labour of cutting. A garden had been made at the Consulate by cutting a channel from a stream so that water could be flooded over low-lying ground, as irrigation is needed during the dry months. Under these conditions most English vegetables grow well; but all seed had to be obtained from England, as the Abyssinian grows no vegetables himself except potatoes and shallots, and the European is dependent on his own horticultural skill to supply his needs. Strawberries brought as plants from Addis Ababa could be gathered in most months of the year, and the garden was seldom without roses and violets. During December and January temperatures are liable to fall below freezing-point at dawn, and meadows are white with hoar-frost, which plays havoc in the garden, as the plants have had no preparation for the shock and have to stand a hot sun all the rest of the day.

Heavy rains fall in July, August, and September. Even then the mornings are usually sunny, but at noon the sky is clouding over, the daily heavy thunderstorm breaks overhead soon after, and the downpour continues for the rest of the day and most of the night. No one travels during the rains if he can possibly avoid it. Rivers fill and overflow, and crossing them with mules is a dangerous business, and in addition tents and baggage never get a chance to dry.

Lightning does an alarming amount of damage to trees and houses, and many people are killed every year. On one occasion the house of a neighbour had been struck and my men went over to help the unfortunate inmates, who ran out screaming. It appeared that although the whole family had been crowding into the hut for shelter, only one boy had been touched by the current and he had been thrown down and badly hurt. A cure had been attempted by village wiseacres, as the nearest doctor is fourteen days' journey away. The victim was buried up to his neck in earth in order to draw out the electricity from his body, but he died during the treatment.

Very drastic remedies are advocated by these simple folk. A man came to me on one occasion and asked me to lend him a twelve-bore gun and six cartridges because a woman had given birth to a child and had collapsed in a dead faint. I asked what the gun was required for under these circumstances, and was told that they had been cracking "pistol shots" on a ploughman's long whip inside the hut. The sharp report was usually a certain cure, but as it had failed a louder fusillade from a gun was recommended to bring her back to consciousness. They had such implicit faith that I lent them the gun, but out of sympathy for the woman only supplied two cartridges, which were fired close to her. A crestfallen man returned the gun and said the shots had had no effect. As their cure had failed I was able to recommend a few drops of

ammonia, which I gave them, and the woman after inhaling it opened her eyes and recovered.

Another old man came to me requesting a lotion for his eyes. I offered him boracic acid solution, but he politely refused, saying that he had hoped I would shoot for him a certain black bird which from his description I recognised as a Fantailed Raven. I offered to get him a rook, which was a black bird more often seen in Dangila, but he explained that only this particular raven would do. He also described what I suppose was the gall-bladder, which contained the magic cure. Within a few days I was able to shoot the raven and send it to him. The next time I saw him he was quite convinced that his eyesight was much better, and five years afterwards he still considered that I had saved him from becoming blind.

The houses at the Consulate were circular, with walls of mud and rock and a thatched roof. Native builders do not know how to erect or thatch a rectangular building, so in the provinces it is best to let them go about it in their own way. Each room is a separate round building, and the enlargement of a house thus becomes a simple matter, for it is only necessary to erect another alongside. Some of the most comfortable houses in Ethiopia are a collection of these round houses joined together by passages.

My men lived in circular huts with walls of brushwood and boughs made wind-proof by using mud mixed with straw and thrown on wet. A centre-pole, a tree-trunk cut to the right height, supports the point of the roof, long bamboos are supported by the centre-pole and radiate to the top of the wall, and the whole is thatched with grass. A hut of this kind is called a *bet*. This is the type of house seen in Abyssinian villages throughout the country. Not a nail is used in it, the framework being held together by the resilient stems of creepers, and the cost of a new

cottage is only a few shillings. Wealthy officials would build a more elaborate development of the same house. The round roofs of a hamlet nestling by a hillside have a strong resemblance to a bed of giant mushrooms.

Churches are built in the same way; in fact on the outside the poorest churches exactly resemble the houses I have described. A bigger or more important one would have mud and rock walls with massive timbers supporting the roof and massive wooden doors. All churches, however, have an inner circular or rectangular wall enclosing the Holy of Holies. The highest point of the roof is decorated with a metal Abyssinian cross, and when ostrich eggs can be obtained they are stuck round the cross. This seems to be an interesting survival of paganism or some ancient cult.

In the precincts of the church two small buildings are to be found. One of these, called an *ikrbet*, meaning store-house, may be placed anywhere and is used for keeping the priests' vestments, church drums, and other properties. The other house is always built to the east of the church and is called *Betlehem* (Bethlehem). Only the priests are allowed to enter here, and in it they prepare the bread and wine for the Sacrament.

Almost every parish has one church and sometimes several. Services commence before dawn. When one is camping near a church the chanting of priests and deacons is heard at a very early hour. The Sacrament is administered every Sunday and there is a service which is well attended by men and women, dressed in clothes that have been washed especially and are much whiter than the working-day apparel, which is usually appallingly grubby. As the service is recited in Giz, the classical Ethiopic language, very few of the congregation are able to follow it. When it is over, the crowd adjourns to the sunny side of the ring of tall trees that surrounds and usually completely conceals

the building from the outside, where they sit in picturesque groups discussing their crops and the village news until the time of the midday meal.

On Sunday afternoon a game of hockey is played by the men and youths of the villages. The ball is made of twisted leather strips, and hooked sticks are cut from bushes. Play commences with a "bully", and in many other ways closely resembles hockey as played in Europe. It would be interesting to know whether the two games can have had a common origin. Pictures of boys playing hockey are to be seen on ancient Ethiopian manuscripts. Rules are not strictly adhered to, but there is a general idea of two goals and two sides. Any number of players, however, can join in at any time and goals are not recorded. The excitement is intense, and anyone responsible for the death of an opponent while playing hockey cannot, by Abyssinian law, be charged with either murder or manslaughter. A man who receives an invitation to play hockey from anyone with whom he has quarrelled, wisely refuses it.

Boys play a less vigorous game with the same kind of ball. The players stand close together, and one boy stoops down to allow another, who holds the ball, to ride on his back. The rider bounces the ball hard on the ground. He can continue to do this until the ball is caught on the first bounce by another boy, when he in turn has to stoop down and allow the catcher to ride on his back and bounce the ball.

No ploughing or harvesting is done by the men on Sunday, nor do the women grind corn, and most people do no farm work on Saturday either. This is a survival of the old Hebrew religion of Abyssinia, before the conversion to Christianity. The vexed question of which day should be observed as the day of rest had been made the subject of many decrees and proclamations by the Emperors in the Middle Ages, and the workers on the land

have solved it by keeping both as holidays. Abyssinia abounds in rules, but they are not hard-and-fast regulations, and I have seen a maize crop being harvested on Sunday. A large market is also held on Sunday at a hamlet a few miles outside Addis Ababa, but disregard of the Sabbath is exceptional.

The Abyssinian Sunday falls on the same day as in England, but their Christmas Day and Easter need not coincide with ours. Their calendar contains a large proportion of saints' days, feasts and fasts, and the festival of Maskal, the celebration of the finding of the True Cross in Jerusalem, is one of the most important events of their year.

During the Muhammadan invasions in the sixteenth century a great many Abyssinians were forcibly converted to Islam, and their descendants have seen no reason to change. They live in separate villages, though cheek by jowl with Christian villages, and there is no religious friction, but needless to say they do not intermarry. The Abyssinian character is remarkable for religious tolerance and a certain amount of apathy, and there is a marked absence of desire to proselytise among the priesthood. In Addis Ababa, where politics and religion have more chance of being intermingled than is possible in the country districts, the Muhammadan and Christian question has at times become acute, and there is at least one instance of an Emperor, Lij Iyasu, being deposed on account of his pro-Muhammadan leanings, his dismissal having been brought about by pressure exerted by an outraged priesthood.

Abyssinian converts as followers of the Prophet have not the fanatical religious zeal displayed by desert tribes. Their "book" is the Koran, but as none do the pilgrimage to Mecca they are out of touch with orthodox Islam. The headman of the village is called the Shaikh and he is the arbitrator on religious law.

Most of my men were Amhara (Christians), the rest were Agaus. Dangila is in Agaumdir, literally "country of the Agaus", which is a big sub-province administered under G'jjam. Many sanguinary campaigns against the Agaus were waged by the Amhara before the Agaus were finally subdued. Most of them are now converted to Christianity and they intermarry with the Amhara. Sir Wallis Budge classifies the Agau language with the Kushite group. It is not a written language, and although when several Agaus are gathered together they converse in their own tongue, they all speak Amharic as well. Amharic is generally spoken and is the accepted language of officialdom throughout Ethiopia.

The system of government has been appropriately described as patriarchal. Age is universally respected and so is white hair, though even the oldest men seldom attain this. A village dispute is generally settled by the elders without taking it further, but more serious quarrels, such as disagreement over land, would have to be referred to higher authority. Most villages have men called Danyers, men of mature age who act more or less in the capacity of Justices of the Peace, if the simile may be allowed. The head of a small village would be a Chikashum, meaning officer of the land, and he is the lowest in rank on the official scale. He has to collect taxes for the hire of land and small farms and is responsible to the official in charge of a district, who would be the next in the upward grade and might hold the rank of Nagadras, literally "head of trade", or that of Gerazmatch or Kanyazmatch—the last two being military rather than civil titles. A Nagadras would possibly have a market or markets under his jurisdiction and would collect the market tolls, in addition to collecting land taxes from the Chikashums of several villages and the money taken at customs posts on the trade roads. Each district through which trade roads pass makes

a charge per mule-load, according to the nature of the goods.

Many officials are illiterate, and very few could keep accounts; so taxes are farmed, which is the most primitive system of tax collection, but at the same time the cheapest in overhead charges. A man buys the right to collect dues in a certain area. His annual payments to the overlord are naturally the smallest he can persuade him to accept, and the collector keeps the rest.

The next official is a Fitaurari, head of a district or even a sub-province. This is a military as well as a civil rank, and his force would consist of several hundred men armed with rifles. They are fed and clothed but receive no regular pay, and he would lead them as reinforcements to the army of the Governor of the Province if called upon. The number of an official's armed retainers is only limited by his ability to support them and supply them with rifles. A Chikashum seldom can parade more than two or three, and it is not unusual to see one followed by a small boy staggering under the weight of a full-sized rifle and his master's buffalo-hide shield.

The Governor of a Province is either a Ras, perhaps the equivalent of a Duke, or a Dejazmatch, who might be compared to an Earl. Some provinces are as much as a hundred miles in diameter. These appointments, once hereditary, are now made by the Emperor. Provincial Governors would appoint their own officials to sub-provinces and districts.

Land is the property of Government, and the occupier is a tenant paying rent, although as in the ordinary course tenancies go from father to son the peasants look upon the land as their own.

I have described a province that still retains its feudal form of government, because it was under these conditions that I had to work, but when I left in 1934 the Emperor

Haile Silasi was making radical changes in order to centralise authority and strengthen the power of the Addis Ababa Government.

Ethiopians are fond of litigation for litigation's sake: the most trivial issues are argued at great length, and groups of men that meet casually by the road will abandon their business for the rest of the day to join in a debate the subject of which they know little or nothing about. There is a recognised procedure in these gatherings. One man speaks at a time, while the rest sit in a half-circle and listen. The speaker stands and faces his audience, adjusts his white *shamma* or cloak, and throws the end over his shoulder repeatedly during the oration, stepping forward and backward, gesticulating wildly with an outstretched arm while he emphasises his points, his voice rising higher and higher to reach an unmusical screech. When you first arrive in the country you think a fight is likely to break out at any moment, although the placid expressions on the faces of the audience seem to suggest that they are unlikely to be moved to fury. When you understand the language you realise that the spectacle is what seems a waste of eloquence over a somewhat colourless tale.

An appeal may be made to the Danyer, the official arbitrator, by one of the litigants, and most small differences of opinion are settled in this way, or the Governor of the district may hear the case himself if he thinks the dispute is likely to lead to a disturbance.

On one occasion a theft of cattle took place in Dangila, and the investigation that followed gives a good idea of Abyssinian legal procedure. A Danyer was nominated and sent by the Governor of a sub-province, who had previously issued a proclamation to a number of churches in the vicinity of the theft, in effect a summons to every able-bodied man whose land lay within the parishes of the

churches, to attend the trial to be held at a named place near the land from which the cattle were stolen. No one may refuse to come. The crowd consisted of several hundred men, so that anyone's absence might have been unnoticed, as no register or check is kept. On the other hand he might be called for, and if not present would be liable to a fine. As a matter of fact no Abyssinian would miss the chance of attending what he would consider a heaven-sent opportunity of entertainment.

The food and lodging of the Danyer, his clerk, and servants, while they were on duty, was, by order, provided by the people of the villages, each village taking its turn. The first day was spent in a harangue by the Danyer, in which he appealed to the men to tell what they knew, pointing out that a cloud of shame would hang over the villages, nay, over the whole district, all the time the thieves remained undiscovered, and so on. The flow of oratory lasted until sunset, when the assembly was dismissed until the following morning. The next day's proceedings were much the same as those of the first day; but the novelty was wearing off, and some of the people who wanted to return to their farms volunteered a certain amount of circumstantial evidence. A heavy rainstorm broke over the gathering, and the Danyer, being a judge of human frailty, refused to adjourn. The crowd got wet, and still more evidence was forthcoming before they were again dismissed at sunset. In the evening, under cover of darkness, several witnesses who had been afraid to say what they knew in public, came secretly to the Danyer and spoke their mind, all of which testimony he accepted as evidence in arriving at his decisions. On the third day a very bored collection of parishioners listened to the oratory of the judge, and information poured in at such a rate that he was able to piece the story of the theft together and arrive at a judgment. He then collected a certain

number of greybeards, who act as a jury, and dismissed the multitude. In this case he did not denounce the culprit at the end of the trial, as is sometimes done, but waited until he had returned and made his report to the Governor. In the trial I have described three men had been involved in the theft: one, whose duty it had been to guard the cattle, who was convicted of being accessory to the crime; his brother, who actually took them; and a friend who arranged the sale to a fourth party, who might or might not have known that he was buying stolen property. The Governor assessed the value of the cattle and ordered that the price should be returned by the three men to the owners in cash. If they could not pay they would be liable to a term of imprisonment. This system is obviously open to criticism; but it is very cheap, suits the people, and although it is far from proof against decisions that are unjust, the same may be said against highly developed and expensive legal systems in other countries.

The only education that is open to a boy in the provinces is the elementary knowledge that can be given at church schools by the priests, who are often barely literate themselves. The Ethiopian is intelligent, and when he gets the chance learns very quickly, and the desire to be educated is widespread among young and old. The waste of so much promising young material that is allowed to drift into illiteracy every year is one of the shortcomings of the present administration, as a younger generation with a fair standard of education, employed in the provinces, is one of the pressing needs of the Ethiopian Government to-day. There are Government and Mission schools in Addis Ababa, but the life in the towns makes the pupils there unfitted for taking up work in the provinces, where an unlimited number of careers in the service of their country are waiting for them. Boys who were educated in the provinces would fill them in the natural

course of events, but the Addis Ababa boy, once he has tasted of the so-called amenities of city life, refuses to leave the capital, or does so unwillingly.

Amhara of all classes consider that any kind of craftsmanship is degrading, and Government service, soldiering, and farming are the only callings that appeal to them. Therefore the tanner, blacksmith, potter, and tailor, the only tradesmen that would be found in provincial towns, are usually men from the subject races, such as Falasha, Kamant, or Agaus.

All Abyssinians eat as much meat as they can afford, and feast-days are celebrated by the slaughter of oxen. The flesh may be eaten raw, but is more often cooked, and a great deal is cut into strips and dried in the sun. James Bruce, who went to Ethiopia in 1769, is responsible for the gruesome story that it was the custom at that time for guests at a feast to devour quivering flesh cut from the live animal, but I have never heard of the existence either previously or to-day of such a barbarous practice. The mark that would be left on the cow by this operation would exactly resemble that made by hyenas, which do take mouthfuls of living flesh from cattle. Their victims are often seen recovering from the wounds by the wayside, and this may have given rise to the story.

Coffee, hides, and beeswax provide a large proportion of Abyssinian export trade, and Abyssinian civet, from the scent-glands of the civet cat, forms the basis of the most expensive scents made in Europe.

Dangila lies in the catchment area of the Small Abbai River, a country abundantly watered by swift-running streams that are well stocked with fish, four of which, a catfish called locally *anbaza*, a carp-like fish called *nach-asa*, a chub-like fish called *beso*, and a perch-like fish called *kuraso*, are good to eat and make a very welcome change from tinned fish. My records for fish taken on rod

and line were seven and a half pounds for catfish and six and a half pounds for *nachasa*; but my interpreter, Gabra Hiwat, landed a ten-pound *nachasa* with rod and line from the lagoon above Tisisat Falls, on the Big Abbai. Both species can be relied on to give good sport for the first five minutes, but after a few wild rushes, when they may take out a lot of line, they tire quickly.

The record fish caught by any means run higher: *anbaza*, twenty-eight pounds, caught in the Gumara River estuary, Lake Tana; and *nachasa*, ten and a half pounds, from the lagoon above Tisisat Falls. Both were taken by my headman Turuna Habasha, on night lines, using dead fish as bait, and all were weighed on clock-face scales by his rivals in a competition to catch the biggest fish, for which I had offered a prize.

The *beso* is a good fish of about two pounds, and perhaps the best of all is the *kuraso*; but both these were only taken in nets by fishermen.

My camp was often pitched beside the Kobastal Falls at Dib Kan on the Small Abbai, which are surrounded with beautiful scenery and are thirty feet high. Fish must be able to pass up them, since they are as numerous in the river above the falls as they are below. *The Field* has recorded a salmon-leap of 10 feet 10 inches, and I have seen an Abyssinian fish clear two feet to escape a net; but it is a miraculous feat for a coarse fish to ascend thirty feet of sheer fall. They must have the trick of wriggling up the film of falling water, for in no other way would it be possible for them to gain the upper reaches.

The only birds that are eaten by Abyssinians are guinea-fowl and the francolins, quail, and pigeons, and as there are scarcely any shotguns in the country, all kinds of birds are exceptionally tame, and shooting for the pot loses much of its excitement. At most camps some variety of game bird could be obtained during an evening stroll;

guinea-fowl were local, but numerous in certain places, and there were two kinds of Francolin or bush partridge. Within reach of a marsh or running streams the Ethiopian Snipe could be shot, and only an expert could distinguish it from the Common Snipe, and even he would be unable to separate the two when cooked.

By the river there are usually a few parties of Yellow-billed Ducks. Ducks and drake are both alike, a dark brown, but otherwise they resemble Mallard. If you are lucky you will find a pair of the rarer Black Duck, which are better in flavour than the Yellow-bills. On the larger rivers or on flooded land there may be Pintail and Shoveller Duck and Common Teal. On the plains are Floriken, which can be stalked with ease in comparison with some of the bustard tribe, and in the right season enough Grey Quail will be flushed on cornfields to make a satisfactory bag. In the fig and other soft-seed-bearing trees, Green Fruit Pigeons can be found. They fly like green arrows when disturbed.

Game animals are scarce on the high plateau and have been driven down into the uninhabited lowland forests, partly by their dislike of thickly populated lands, and partly because they have not been able to hold their own since the introduction of modern rifles into Abyssinia. Bush-buck and Oribi are still seen in the less frequented areas, but the Duiker, the *Medukwa* of Abyssinia, is the only antelope that can be said to be common. The hippopotamus is plentiful in the pools of the Big Abbai, and the Clawless Otter thrives on the streams of the highlands. A Hyrax or rock rabbit makes a home in hollow trees, on the branches of which he climbs with ease, and an Ant-bear digs inconvenient burrows in the middle of mule-tracks in his search for the nests of white ants, on which he seems to live exclusively. The Spotted Hyena is a pest everywhere, biting lumps out of cattle, mules, and donkeys if they are left unprotected, and even killing small children,

and making the night hideous with his loud eerie call. He is seldom seen, but hardly a night passes in camp in which he is not heard.

All hollow trees have either a swarm of wild bees or a square hole cut where the adze has enlarged the entrance in order to admit the hand of a honey-gatherer. Abyssinians can put their hand into the middle of a swarm and take out the comb without being stung. The men in front of my caravan often found a hole containing a swarm by the roadside, and, plunging in a hand, would take out big lumps of honeycomb, which they divided with their friends and munched as they went along. The bees were naturally disturbed, but made no attack on the men or mules; but when I came by about half an hour later they were not so amiable, and I had more than once to dash into the forest with a crowd of angry bees in pursuit, bent on vengeance for an act for which I was in no way responsible.

CHAPTER V

THE SOURCE OF THE BLUE NILE

FOR the purposes of a connected narrative based on these various expeditions of mine, it seems convenient as well as appropriate to begin from the sacred spring at Gish Abbai and follow the river, the Small Abbai, down to its estuary in Lake Tana. The next stage is the circumnavigation of the lake, with an account of its islands and the monasteries on them. We then return to the lake overflow and follow the river, now the Big Abbai, in its great canyon till it emerges eventually in the hot lowland forests, and so arrive at Roseires in the Sudan.

Were I to describe my various attacks on the Blue Nile Valley in chronological order the tale would be disjointed and difficult to follow. The first idea of carrying out the whole survey in a single journey was found to be impossible and was soon abandoned. The only alternative was to do the various sections separately and join them together afterwards. Each successive effort was therefore made as opportunity offered. They extended altogether over a period of eight years, interspersed with official journeys, making a total of 5000 miles travelled on mule-back.

I first passed through Sakala and saw the sacred spring on March 24th, 1926, on my way to pay an official visit to Ras Hailu, the Governor of Gojjam Province, and incidentally to discuss with him the preliminary arrangements for the journey down the Big Abbai Valley. He had, he said, received a message from His Highness Ras Tafari telling him to give me every assistance. Although aghast at the idea of anyone wishing to embark on what he con-

sidered a mad escapade, from which he did his best to dissuade me, when the time came for me to start he went out of his way to give all the help he possibly could.

Gojjam is a huge governorship, hundreds of miles in extent, which includes several sub-provinces, and by planning to keep to the right bank of the river it would be with Ras Hailu and Ras Hailu only that I should have to deal for nine-tenths of the whole journey. This route had an obvious advantage over the other bank, on which the district administration was divided among innumerable chieftains.

On May 10th of the year 1926, on my way to see Ras Gugsu Wolye, Governor of Bagemdir, another big province to the east and north of Lake Tana, we had to ford the Big Abbai near the lake outlet and I took the opportunity to inspect the first twenty miles of that river.

An iron canoe which had been used by the Grabham and Black Mission for survey work on the lake outlet at Bahrdar Giyorgis was left in my charge, and it had been my intention to take this on the chief reconnaissance of the Blue Nile Valley if travel conditions proved favourable. I therefore spent two days in a careful examination of the first twenty miles of the river as far as the Tisisat Falls. The unending rapids on this reach alone convinced me that a boat would be useless as well as an encumbrance, and the idea had to be abandoned.

Lake Tana was seen on many occasions, as most of my journeys northward touched its shores on one side or the other and I had to encircle it completely in 1926 and again in 1928. A lovely lake it is, with forty miles of open water at the widest part. Green meadows meet the blue water along the shore, tree-clad peninsulas and bays make an unending variety of scenery, and in the background rise mountains, forming an effective frame to the picture.

Each time I saw the forest-clad islands, remote and

mysterious, lying far out on the water, the desire to land on them and visit the monasteries grew more insistent; but it was not until the winter of 1932, permission having been at length obtained, that I was able to carry out this ambition, and also to make a complete circumnavigation of the lake.

The chief reconnaissance of the Big Abbai, which I have called the "First Blue Nile Reconnaissance", started from Tisisat on January 2nd, and ended on April 15th, 1927, by which date I had carried my survey 300 miles down the valley to the point where Jessen had left it in 1905. Circumstances to be related later forced me to turn back here.

Although with Jessen's information to add to mine, the river now held no secrets of first importance throughout its course, it was in many ways desirable that I should myself continue to the end. For one thing, my interrupted journey left in the air the series of water-levels that I had taken, and to make them of value it was necessary to tie them on to some station that had been precisely levelled with the sea. The first of them would be the top of the Nile gauge at Roseires. As I did not know when I turned back that I should ever have an opportunity of completing the journey, it was with feelings of great disappointment that the retreat was sounded at Wanbera.

By good fortune the opportunity came to undertake another expedition, which I have called the "Second Blue Nile Reconnaissance". I was in Wanbera again in two years, and on the Blue Nile banks at Beri Hill on February 28th, 1929, and following the river, crossed the Sudan frontier and arrived in Roseires on March 14th.

The Sudan road system comes up to the frontier, so that a few miles after we had passed the boundary, a *khôr* at Bumbode, I was able to dismount from my mule and continue the journey in a motor-car that the District

Commissioner, Mr Davies, had sent from Roseires to meet me.

The motor road keeps close to the river-bank all the way, and although in the Sudan my surveying instruments were put away as being unnecessary any longer, I was in fact still marching with the river. Instructions awaited me in Roseires that I was to go on to Khartoum. The motor track continues to keep close to the river-bank, so on the road to Sennar the river is seldom out of sight, and as the railway to Khartoum and the river run almost side by side, I was in fact following the Blue Nile all the time. On March 23rd I stood on the Mogrum at Khartoum, at the junction of the Blue Nile and White Nile, and watched the eddies at the line where the two waters mingle. Before me lay a huge expanse of moving water. Beyond the combined waters, no longer the Blue Nile but the Nile, lay the minarets and faint grey outline of the town of Omdurman. The scene conjured up contrasting visions; of a little spring surrounded by reeds in the Abyssinian mountains, pleasant river scenes, green pastures and grazing cattle and willow-lined streams that might have been somewhere in England, tumbling cascades, an inland sea, a magnificent waterfall; a forbidding canyon getting deeper, hotter and ever more difficult; cataracts; mountains; struggling mules, the tragedy of dying mules, the haunting memory of dying men; mountains and yet more mountains; hot lowland forests; negro villages; easier marches, a placid and wider river, steamboats, a great barrage; a modern African city. After a thousand miles of restless travel the Blue Nile had arrived.

From Dangila to the spring at Gish Abbai, if a traveller is moving slowly, is a four-days' journey by mule. As it lies on one of the tracks that lead to Debra Markos and Addis Ababa, I was able to see the famous source on several occasions without making a special journey to do

so. The mule-track keeps parallel with the Abbai River, which carries away the overflow of the spring, but at several miles' distance on the left bank. As the river is hidden away in a fold in the landscape, and for most of the way the land is covered by forest, no views are obtained of it until the last day, when it is crossed twice, but it is there so near the source that it is little more than a fast-running brook. Although the main stream is not seen, tributary after tributary has to be forded, some of them big enough when they join the Abbai to make a considerable increase in its current. The track rises gradually all the way, and on the last day there is a climb up a hog's-back ridge on to short grass downland at the top of the ridge, where views of the mountain scenery are extensive and magnificent. Not far to the east commence the foothills of the Amadamit range, rising to the peaks of the main range 11,000 feet above the sea, and visible behind this is the massif of the Chokai Mountains, 2000 feet higher, where the climate is so cold that the Ethiopians cannot live there and seldom cross over them. To the south there is an uninterrupted view over the main Blue Nile canyon 60 miles away and to mountains hazy in the distance that rise from the water's edge on the opposite bank of the river.

Below, and looking so close that it would appear to be within easy distance for an evening's walk, is the sparkling water of Gudera, a volcanic lake nestling on the mountain-side. But the mountain air is deceptive, for it would not be reached in two hours and it is really 1200 feet below you. It is well worth a visit; in addition to the beautiful surroundings the surface is dotted over with duck and waterfowl of many different kinds, and there is a mystery about its water, for it apparently has no outlet through the dam of scoriaceous lava-blocks that forms its southern bank where the outlet ought to be.

To the north of the lake there is a plain half a mile across, so level that it resembles a billiard-table; the similarity is increased by the green grass growing there, which is cropped short by flocks of sheep and shorter still by the big flights of Egyptian Geese that come out from the lake to graze. This plain is crossed by the Zagazh River on its way from Lichma Hill to join the Leh River; it does not disturb the even green-table effect of the plain because it has cut for itself a deep channel in what appears to be clay or fine silt deposit, and you have no idea there is a river until you come suddenly to the bank. It seems likely that this stream gives the solution of the question of the lake's water-supply. In the rainy season the Zagazh overflows, flooding the green plain and the lake, and the whole area becomes a big lagoon. In September the river falls, draining the plain, where the grass is once more uncovered, and leaving the Gudera Lake full to the brim. The presence of Cormorants and White-headed Fish Eagles round its shores is evidence that its waters are well supplied with fish.

Gish Mountain is close to the sacred spring and restricts the view to the westward, but to the north a range of hills and peculiar bare lava-cores of extinct volcanoes is seen running south to north and fading in the far distance, marking both the edge of the escarpment of the Abyssinian high plateau and the western watershed of the Small Abbai. In clear weather the hills close to Lake Tana 70 miles away are visible.

In a fold in the downs on a mountain-top and surrounded by mountains as far as the eye can reach, lies the little spring—a worthy setting for the birthplace of the Blue Nile. The height of the spring above sea-level, 9000 feet, is an altitude which is evident in Ethiopia without consulting a barometer. There is, firstly, a cooling of temperature, and the air is noticeably rarefied, and then a marked difference in the flowers and birds that are

seen, of kinds rare below 8000 feet. A high-country bush is the beautiful white tree-heather, and an aromatic shrub with a yellow flower like St.-John's-wort, whose leaves scent the air around it. A conspicuous highland bird is the Abyssinian Black-and-white Stonechat that flits in front of you, perching on the tops of bushes, and would be difficult not to notice. It is scarce lower down, but becomes one of the commonest birds at this level.

The mountain, capped with a blunt peak, lying one mile to the west of the spring and rising 800 feet above it, is known as Gish or Wombata. I could find no legend associated with it; but as it is the only ground lying above the spring, it may be assumed that it is the seepage from the interior of Gish Mountain that supplies the water rising in the spring. The mountain itself does not appear high; nor is it conspicuous from a distance, as there are so many higher peaks in the neighbourhood, but it is astride a ridge already over 9000 feet above sea-level, so the summit is over 10,000 feet. The district is called Sakala, and the immediate area of the spring (for several others flow from the foot of Gish Mountain) is referred to as Giyon, the Amharic for Gihon. It is believed in Ethiopia to be the river mentioned in the Bible as being one of four that flowed from the Garden of Eden: "And the name of the second river is Gihon: the same is it that compasseth the whole land of Ethiopia" (Genesis ii. 13).

My altitude for the spring is 9500 feet above sea-level, which was obtained from a reading by boiling-point apparatus adjusted to my trigonometrically calculated height for Dangila Consulate; and the top of the ridge, which is also the watershed between Lake Tana and the Big Abbai, is 50 feet above the spring and only 500 yards to the south of it. Most remarkable is the circular course of the Blue Nile. It may best be illustrated by saying that rain falling on the dividing line of this watershed would

start to flow in opposite directions in two streams which would eventually arrive at the same place in the Big Abbai, whereas the water falling to the north of the divide would flow northward for 70 miles to pass into and out of Lake Tana, and perform altogether a great circle of 340 miles before reaching the place at which the water falling south of the divide had arrived after covering a distance of only 60 miles. The sacred spring is surrounded by an artificial fence of dry reeds. On March 24th, 1926, when I first saw it, there was a deep hole a few inches in diameter full of clear water, but with scarcely enough current to flow. It seeps through sedges, however, and forms a protective quagmire of mud all round, so that to reach the spring it is necessary to pass over the swampy ground by a balancing feat on branches of trees laid on the mud by the priests, in order that they may cross it to obtain the holy water without getting bogged. On three sides the well is hidden by a fringe of dense scrub thicket.

The small flow from the spring finds its way through the bushes and trickles down a small depression, its course marked by a thin line of bright-green water-grass and rushes. At first the direction is north-east for about half a mile, after which it curves round and goes north, and by yet another bend flows to the west, passing the spring again at a mile's distance, and finally settles down under the name of Abbai to a general northerly direction for the rest of the 70 miles of its course to Lake Tana. The high-water level of Lake Tana is 6002 feet above sea-level, and deducting this from the height of the spring, it shows that during the 70 miles the river falls 3498 feet; and as will be seen later, most of this descent takes place in the first 35 miles. The Church of St. Michael and Zarabruk stands on the top of a ridge half a mile from the source of the Blue Nile. Its priests are in charge of the spring, and no one else is allowed to draw its waters. They say that if

anyone attempted to dip an unhallowed vessel in it, spirits would snatch it away, and it is certain that the pilgrims are too superstitious to put this to the test. I asked to be allowed to drink from it, and the priest arrived in his vestments, accompanied by a church boy-student who is called a deacon, who held an umbrella over him, while another deacon carried a brass cross mounted on a staff. When the priest heard that I had already eaten, although he gave me the water he insisted that it should be kept till the next day and be drunk before breakfast. Not only does the water lose its curative power if taken after food, but it can be very deadly, and instances were given of men who, ignoring this warning, had swallowed the water after a meal and had died.

On ordinary occasions holy water called *tabal* is given out at midday, but on Sundays at dawn. The grass plains round about are scattered with the camps of pilgrims who have come long distances to be cured. No regular money charge is made by the priests, nor does the Government levy any tax for water distributed, but people who come with ailments make a promise to themselves that if they are cured they will pay a certain sum to the church, and they do so.

In 1933 my wife and I were at Gish Abbai together, and the priest took her across the bridge of branches to the spring. The small crowd of pilgrims that were waiting near and hoped to be healed of their maladies by the magic balm of the water next day, raised no voice of protest, but when she touched the water with the end of a long stick they called out to the priest, "Don't let her touch it. She is a woman", and of course their wishes were respected. She turned to the priest and asked what evil would befall if she were to bathe in the spring, and he replied very seriously, "You would die". We were told that there would be no objection to our going to the Church of St. Michael to-

gether, provided my wife conformed to the Ethiopian Church's rule that the women and men should enter by different doors.

I took the opportunity, when a priest and several of his parishioners were gathered together, to ask about the history of the church. They all agreed that it was founded in the reign of Yohannes Kadus—or John the Holy (John I, 1667–1682), and the Ark in the Holy of Holies came from Gondar. They were certain that John never came to the church himself. This is not the version given by Morie and quoted by Budge,¹ which states that the Emperor Susenyos went to Gish in 1613 with Pedro Paez, the Jesuit Father, and founded the Church of Mikael to commemorate the event. It was, according to my informants, built by the money of a woman of Gondar named Bujet, a maiden who was a relative of the king. She had been brought to Gish by her mother, Iniya, to drink of the sacred spring in the hope that it would cure her of a complaint that the “doctor” had failed to relieve. Bujet recovered and fell in love with a chieftain of Sakala, married him, and refused to return to Gondar.

I have not been able to find any reference to Bujet or her mother elsewhere, but there is a small left-bank tributary of the Abbai, near Gish, which is called the Bugeta, which may commemorate the romance of Bujet and have been named after her. When I was last in Sakala, in 1933, the priest told me that the church had been extensively repaired by Ras Hailu.

¹ *A History of Ethiopia*, p. 397.

CHAPTER VI

THE COURSE OF THE SMALL ABBAI: THE UPPER HALF

THE road from Dangila to Gish Abbai crosses the Small Abbai twice about three miles from the source, after the river's snake-like bend, first north-east then west. It is at the crossings a bubbling brook collecting several other small streams from Giyon and flowing through meadows of short grass, the banks lined with willows and bright-green-leaved water-plants and cresses.

Mr G. W. Grabham, who crossed it at a ford 8 miles from its source in July, the first of the three months of heavy rain, gives its width as 7 metres (22·9 feet). Twenty-three miles from its source I had occasion to cross it in February 1928—that would be in the dry season—and found its water 60 feet wide and 2 feet deep, with current flowing at one mile an hour. It was in a valley 100 feet deep with forest-clad slopes, and the high-water mark indicated that the river would be 240 feet wide in flood. Until it reaches Dib Kan, 35 miles from its source, its course is uneventful, and although it would not have been very difficult to follow its banks, it did not justify the time that would have to be expended on the journey. I was, however, able to straighten out the left-bank tributaries, which had got into a most confusing tangle on maps, for the reason that the Ashar River, a tributary that is as big as the Small Abbai, found no place on the charts, and its position was shown as that of the Small Abbai. Actually, both rivers run in very similar parallel valleys before they join.

The largest of the right-bank tributaries of the Small Abbai have their sources among the foot-hills and western spurs of the Amadamit Mountains, the summits of which rise to 12,000 feet above the sea. The left-bank tributaries drain the eastern side of a range of mountains of volcanic origin that run parallel with the Small Abbai and form the edge of the high plateau escarpment. The tops are 8000 feet above the sea, but only 1000 feet above the high plateau, so that from the lowland forests to the west they look like mountains of imposing dimensions, but from the east they appear no more than hills. One of these summits, called Saguma, was six miles from Dangila, and I often rode there merely to see the view; on one side it was possible on a clear day to see Lake Tana, and on beyond the water to the mountains near Gondar, 90 miles away. On the west the land falls steeply by crags and precipices to forest several thousand feet lower, laid out like a map below you. This is the almost impregnable Abyssinian escarpment that has had not a little to do with the history and security of the Ethiopian nation, for it is a formidable barrier for an invading army to surmount, more particularly for the barbaric hordes from the neighbourhood of Sennar, whence came, as the pages of history show, more than one threat to the Ethiopians' existence. The steep escarpment is not confined to one area but extends for hundreds of miles along the western fringe of the high plateau. From Saguma, hills near the Sudan frontier on the way to Roseires are to be seen on the horizon, a truly amazing distance of 80 miles, or even farther.

On one of my first visits to the mountain-top, where I had gone to make a station for triangulation with a theodolite, I was seized with the desire to find an alignment for a motor-road up the escarpment. It seemed to me that the future of Ethiopia lay in opening up communications. The forbidding rise up precipitous slopes here, and the crossing

of the Blue Nile canyon 100 miles to the south-east, were the only two engineering problems that would cause any difficulty in the construction of a road joining Khartoum to Addis Ababa. All the rest of the country lent itself admirably to such a project. The Sudan roads already came as far as the frontier, almost to the distant hills I was looking at. It appeared obvious that a trade road would not only be of immediate advantage to Ethiopia and to the Sudan but would develop into one of the arteries of the African road system. Much depended on whether I could find a gap in the great wall where gradients giving a rise of one foot in ten would allow a motor-track to be made at reasonable cost without having to blast great columns of the cliffs, which would make the expense prohibitive. No one had been able to find such a way up to now, not even the Abyssinians themselves, who used tracks more fitted for a goat than a mule in the few descents that they made in order to trade in Roseires and Gallabat. I had seen these and thought they were appalling.

From that moment began a quest that lasted six years for a reasonable slope. No opportunity was missed of noting any distant formations that promised the required one-in-ten gradient, and an expedition was made to examine them: each one seemed worse than the last. On one occasion we followed a river called the Lalan down its valley, thinking that it might during the ages have eroded a more gradual descent for itself which might be utilised. After two days of good going, when hopes were running high, we came suddenly to a sheer cliff where the river hurled itself off the escarpment. The Gizani River went over at the same place and the two rivers joined in mid-air. It was a magnificent waterfall, 800 feet high. I had discovered the Tiski Falls but not a way down or up the escarpment. I tried places at sixty miles to the north with no success, and came back forty miles and

tried again. One of these journeys, undertaken at the beginning of the rainy season, was memorable not for any success that attended our efforts but for the number of horse-flies that attacked our mules when we got to the lower altitudes. Never have I seen them in such numbers; the animals' necks and exposed parts were black with them, and blood flowed freely, so that instead of the grey mules we started with we were in a short time riding red ones. We tried to give the animals some relief by breaking off leafy branches and beating the flies as we rode along, but if twenty fell off dead another twenty immediately settled in their place, and we splashed ourselves and everything else with blood. My men and I were not the objects of attack, but we occasionally received a bite on the hand or neck.

Passing through the forest we came upon what seemed like a very large swarm of bees. In the midst appeared the hazy forms of cattle moving steadily along accompanied by myriads of the flies. Behind the herd we passed the owners. They said they were taking the cattle to the salt-well down below. The soil of the Abyssinian plateau, as has already been mentioned, is deficient in salt, and all animals, wild and domestic, have a craving for it. Salt-bars, brought by merchants 500 miles on mule- and camel-back, from the salt deposits in the Danakil deserts near the Red Sea, form the small currency of the country, often the only small currency the village folk will accept. Some of this finds its way to mules and horses, but cattle have to be taken long treks every few months to salt-wells, which usually are found below the escarpment. Here the herds remain for two days, revelling in the saline water. Cattle will even come long distances to crop the grass that has been touched by human urine for the sake of the salt it contains, and I once came upon an ingenious trap set in the forest for antelopes, using this craving as a means of attracting them. It was a simple

rope noose set horizontally between sticks, fixed to a stout wooden bender, and kept down by a catch which is released by any pressure on a few sticks laid loosely just above ground. The trapper sets the trap, baits it, and walks away. Any antelope passing in the district is immediately attracted to the trap. The pressure of his muzzle on the sticks releases the catch, and the bender flies up with the rope round the animal's neck. I was told that it is a most efficient snare.

By the year 1933 I had tried all the passes up the escarpment but one near a small village called Mazarkanye. It was, as usual, in uninhabited forest, and I had only viewed it from a distance of five miles, but just in that section of the range I had noted that the cliff-like line seemed to terminate and for a space of five miles the slopes were gradual until the precipices began again. The surveyors of the J. G. White Engineering Corporation were in the district in 1933, and the leader, Major L. B. Roberts, who had seen my notes and sketches, decided to have one last attempt to discover an alignment for an escarpment road with no gradient exceeding 10 per cent, by sending one of his surveyors to examine the slopes below Mazarkanye. He sent Mr Long, who arrived in Dangila on Christmas Eve, and we went over my rough sketches carefully together before he started, as it was all in unmapped country.

I awaited his return anxiously, knowing that if he was not successful this time it was unlikely that a pass would ever be found; so his report, when he came back weeks later, was particularly gratifying, for he had been able to find a line with the required gradients, on which a motor-road could be constructed without any blasting of rock.

The road may not be made for some time, but when it is completed a car should be able to travel the 650 miles from Khartoum to Addis Ababa in four or five days at the most, a journey which now entails travelling two days by train to Port Sudan, three days down the Red Sea to

Jibuti by boat, and a three-days' journey by train to Addis Ababa, with interminable delays at each connection. The boon that the advent of the motor-car would confer on intermediate towns on the motor-road by placing them in touch with the outside world would be inestimable.

To the west and north-west of the source of the Blue Nile there is an extensive field of extinct volcanoes, dry craters, crater lakes, and bare lava-cores on both sides of the Small Abbai water-divide.

Lava-cores, some of them 300 to 400 feet high, have the advantage of being exceptionally good points for survey work, being recognisable at long distances, as they usually have some peculiarity of shape. Some of them were visible at a distance of forty miles. The nearest one to the spring is called Atsam, and as it was conspicuous from Dangila it became one of my points for theodolite triangulation, and compass bearings on the march were taken to it whenever possible. For some time my plottings would not conform to the detail of published maps. I knew something was wrong but was completely baffled until a careful re-reading with a theodolite made plain the cause. There is a very similar cone called Fudi in Shashna district on the western side of the same group of hills, but eight miles distant and not often visible from eastern positions. D'Abbadie, on whose survey work official maps of this area are based, had seen Atsam and obtained its position and bearings on it, but had given it the name of Fudi.

During one of my journeys in search of a pass down the escarpment, I had the opportunity of going to Fudi. It is a well-known landmark and it was a generally believed story that some of the bolder spirits had climbed to the top of the cone. I invited a party of men, who said they had seen men who had been to the top, to come with me, and challenged them to show me the way up. We scrambled up the smooth face of the lava for about 100 feet and were

brought to a standstill, so we decided to try again next day. On reaching the ground again we found the skeleton of a monkey with a broken skull lying at the bottom of the cliff, which so depressed my companions that they were quite ready to agree that the story of the cone having been climbed was a myth, and a second attempt was never made. Injabara cone is similar but smaller, and as the rock-face is not so steep it is possible that men have been up there.

The story is told that Ras Hailu wished to know whether a rifle-bullet would reach the summit, and two of his men volunteered to climb up and see. When they were on the top the Ras shot in their direction and they were able to return with the proof that the bullets went over the top.

A typical example of a crater lake lies six miles south-west of Atsam and is called Zangana Kabab (Amharic: *zangana*, circle). The rim is a perfect circle about one mile round and not much above the surrounding land-level. The crater-sides are steep for 100 feet to the water. There is, apparently, no inlet or outlet, but there are two springs not far away on the outside which I suspect are connected with the crater and maintain the water at a constant level. The spring to the south flows to the Fatam River, and that to the west joins the Zingini River. There are no reeds on the lake, and the blue water suggests great depth. A fringe of bushes and thick scrub grows on the steep sides, and no track descends to the water. Local superstition hangs over it, and no native will drink water from the crater, which is believed to be bewitched. It was said that wicked people who once lived on the land there had denied the existence of the Almighty, who caused the earth to subside beneath them and drowned them.

Another prominent peak called Debra Sina (meaning Church of Sinai), on the edge of the escarpment, lies 30 miles to the north and crowns a mountain mass in Achefer district. It was used by d'Abbadie as one of his points, but

he calls it Sambillo, and I have never been able to find any Abyssinian who knew it by that name.

On the foot-hills to the west of Debra Sina an interesting tribe called the Kwanfel live in villages in the forest. They have a reputation for being proficient in the occult sciences, and possessing the power to bring rain and search out thieves, and are consulted by the Amhara, who nevertheless look upon them as inferior beings. It was one of my great regrets that I never had an opportunity to visit them.

CHAPTER VII

THE SMALL ABBAI: DIB KAN TO LAKE TANA

November 21-29, 1932

DIB KAN is a small village with a church dedicated to Mariam, or Mary, standing on the end of a ridge that causes a U-bend in the course of the Small Abbai. From a geographical and topographical point of view it is an important locality, for within a few miles of the church three of the biggest tributaries of the Small Abbai join the main stream: the Ashar on the left bank, and the Jamma and Kogar on the right bank.

Levels taken at Dib Kan show that the Small Abbai has fallen in the first half of its course almost all the distance that it is going to fall. There are a few cataracts below, and from there it is so close to the level of Lake Tana that it flows tranquilly in a deep-cut bed through grass-plains up to the estuary. Gish Abbai spring is 9500 feet, Dib Kan 6765, and Lake Tana high-water level 6002 feet. In the first 35 miles the Small Abbai drops 2735 feet, or 78 feet per mile. In the last 35 miles it falls only 763 feet, or 22 feet per mile. In the future Dib Kan is likely to become a place of wider importance, for the alignment for the new road from Addis Ababa to Lake Tana, which engineers of the J. G. White Engineering Corporation were surveying in 1934, crosses the Small Abbai at Dib Kan, and as the river, augmented as I have said by her tributaries, has now become wide with a considerable current, a substantial bridge will have to be built.

But it will be for its waterfalls that Dib Kan will be

remembered. There are two on the Ashar River, each with a fall of 20 feet and both within a few miles of its junction with the Small Abbai. Following the Small Abbai downstream we come to Kobastal Falls within a mile of Dib Kan church. I never missed an opportunity of camping there when my journeys took me that way, pitching my tent within the sound of the water thundering into the deep pool thirty feet below. Some good fish of the kind called *nachasa*, and the catfish, called *anbaza*, of about six pounds, could be caught in the pool, and as is the case with fish living in fast-running water they were active and fought well, and were far better in flavour than those taken in still water. When they were hooked it was by no means certain that they would be secured, for in order to reach the centre of the pool it was best to stand on the rocks at the top of the fall, and the hooked fish had to be played and led to the bank where a man climbed down to land it. All falls in the area, in fact in the country, seem to have the same formation, a block of solid basalt or lava which resists the erosion of the river. They are usually under-cut behind the water, and the rock ledges form comfortable refuges for rock pigeons and red-winged starlings that fly between the cascades in order to get to them. The starlings will even pass through a thin film of water.

We were not confined to a fish diet; there were guinea-fowl and francolin for the pot. It was dull sport shooting them, as they seldom fly if they can run, so I used to lend my twelve-bore gun to my head muleteer, who was a keen stalker. He would go off with three cartridges and be away for a few hours, returning at dusk with four or five birds, and would solemnly give me back one unspent cartridge.

A mile below Kobastal the Small Abbai goes over another basalt cliff, falling about 30 feet, and a short distance downstream the Jamma River comes in on the right



ABBA WANDI OF DIB KAN, SMALL ABBAI, WITH THE AUTHOR'S
CATCH OF *NACHASA*



TINGITI BARAKAT LAKE, SMALL ABBAI (p. 86)

bank. This tributary was first made known by the Portuguese Jesuit Fathers in the seventeenth century, and is mentioned by Lobo, but present-day maps have placed its junction with the Small Abbai six miles upstream of its correct position. The Kogar River is another right-bank tributary that tumbles into the Small Abbai from a lava-formed shelf 15 feet high.

In the neighbourhood there are several river-reaches in which shallow water flows over a stony bottom, making it ideal for the throwing of the fisherman's bell-shaped net. These nets, though used in other countries, are seldom if ever seen in Ethiopia. A villager of Dib Kan named Aba Wandi was given a net years ago and was shown how to use it and make it. He is now an old man but is very expert still and has taught his sons and friends, so the place might almost be called a fishing-village. The fish they catch and call a *beso* (*Varicorhinus beso*) is a chub-like fish of two pounds.

The mule-caravan track has two fords crossing the Small Abbai above and below the Kogar Junction. In the rainy season, when fords became dangerous, the packs are put over a ferry at Watat Bar a mile or two away below the cataracts. The craft used is a *jendie*, a raft made by placing the goods in a whole bullock-skin tied up at the top, looking like a coracle, which is pushed into the water and floats while men swim beside it and guide it across. It is a very unstable construction, and while we were there great consternation was caused by the loss of a load of rifles. Aba Wandi came to ask if I had any instruments that would look through muddy water and show where the rifles lay, so that he could send divers down to recover them. I made him a "water telescope" such as is used for looking at coral on the bottom of tropical seas. It is merely a tin with the top removed and glass inserted in place of the bottom. We found that although this operates most success-

fully in clear water, it was no help in this river when the water was muddy.

From Dib Kan for a distance of 20 miles downstream, in fact almost to Lake Tana, no European had, so far as I know, seen the river, and it was certainly not mapped. The Kilti River, which I knew in its upper reaches, for it rises in Saguma Hill on the escarpment near Dangila, was shown on maps in duplicate, and I felt sure there could not be two Kilti Rivers running parallel and only five miles apart. In addition I was anxious to know the exact course of the Small Abbai. This stretch of country lay away from roads and at right angles to them, and it was not until 1932 that I was able to travel along the river and map it. I was travelling to Lake Tana to carry out the cruise round the islands, and as it would not take me far out of the way I decided to make the most of the opportunity. We camped at Dib Kan and followed the left bank of the Small Abbai, where there were village-to-village tracks but no through route. We found a guide who offered to take us for the first two days, but said he did not know the last part. Our first night was spent close to the junction of the Kilti River with the Small Abbai, and I was able at last to fix its position.

While getting bearings of the adjacent hills I saw a large sheet of water a mile away on the right bank of the river. I asked the guide its name and he called it Tingiti Barakat, or "shining Tingiti". The discovery of a volcanic lake just there, for that is what it proved to be, was most unexpected. It was not shown on maps, of course, but what is more strange is that no Abyssinian had ever mentioned its existence. I saw it twice afterwards. On another journey I made a detour on purpose to camp beside it, and we once had a glimpse of it from the top of Debra Sina Mountains, 20 miles away, where it was justifying its name by flashing across country a dazzling reflection of the sun, so that it

was the most conspicuous part of the landscape. Its water is supplied by the flooding of the Small Abbai during the rainy season; the land between the lake and the river is low-lying and level and is covered by water when the river-banks overflow, so that the lake, the intermediate land, and the river become one big marsh. As the river falls it drains the marsh, leaving a lake a mile in diameter north to south and three-quarters of a mile east to west. It is said to be of great depth, and as no rushes grow there, except for a narrow fringe at the edge, it suggests that the bottom shelves steeply from the land. On the south shore there was a small deposit of white sand where the waves were breaking. I had seen dark sand, formed of the disintegration of basalts, but this was the first white sand I had seen in the country.¹

The lake is stocked with fish: we hooked a catfish, and an osprey caught a *kuraso*. I was watching the bird cruising a hundred feet above the lake with a lazy, flopping movement of his great wings, when he suddenly closed them and hurled himself head-first into the water with a mighty splash and seemed to disappear for a second. Then he reappeared and rose off the surface bearing a silvery fish in his talons, and, shaking the drops from his feathers, sailed over me so closely that I was able to identify his catch.

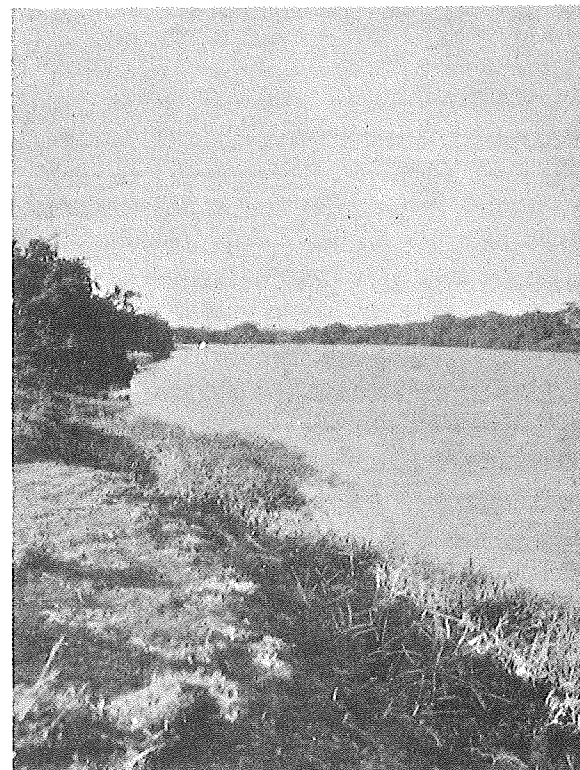
Another addition that was made to the map in this area was the junction of the Branti River with the Kilti not very far from the latter's junction with the Small Abbai. There was no sign of a second Kilti River.

While I was surveying this neighbourhood I sent the guide ahead to find a way to Dambi Ford, where the next trade-road crosses the Small Abbai, so that my caravan should not be delayed when we started. He returned ruffled in appearance and temper to say he had found a good way

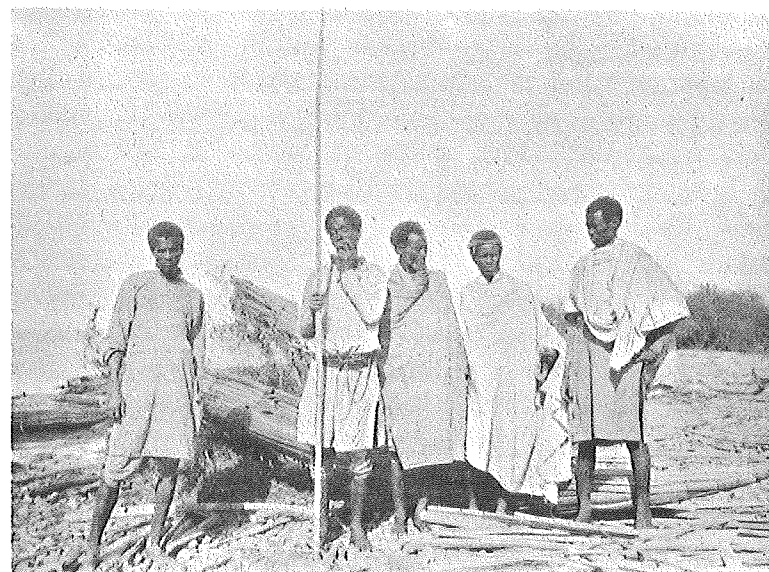
¹ The sand was composed of quartz and feldspar.

to our next camp, but on going beyond had met some harvesters who, instead of answering his enquiry about the road, had told him to come and help them cut the corn, and when he refused had accused him of spying and had beaten him and torn his clothes. The land where we were is almost uninhabited. Villages are few and far between, and the big deserted grass-plains make secluded retreats for cattle-thieves and their associates, who can keep the looted animals grazing down by the river far from the arm of the law until they can safely dispose of them. It is for this reason, the guide explained, that strangers with an enquiring mind are discouraged. I eased his bruises with dollars and promised to put his account right with the pugnacious harvesters if we saw them. We passed the cornfield two days after, but they had seen my caravan from afar, and, rightly suspecting that it was an avenging army, had disappeared.

Gug Hill was passed an hour after leaving the Kilti. I knew it well as a distant landmark, for it is a volcanic pile 500 feet high, standing isolated in the flat country, and I was glad to see it closer. It has several bare exposed lava-cores, and there is a satellite hill close by with a side of 200 feet, indented with caves on the cliff face. Several fantastic isolated hills, all volcanic, are seen to the north, the most prominent of them being a perfect cone called Asi Nuru. We camped beside the Small Abbai and found it deep in a channel cut in mud-banks, with a sluggish flow. The noise of a small cataract could be heard upstream when all was still at night. The next day the river followed a series of S-bends, going out and returning among pasture-land. We were travelling through the district of Asiru Debra, or "the ten churches", but passed only two of them and arrived without adventure at Dambi Ford, a crossing of the Small Abbai much used by coffee mule-caravans coming from Zegi and going to Gallabat, although



DAMBI FORD, SMALL ABBAI



WAITO TRIBESMEN, LAKE TANA (p. 92)

most of this trade is carried by water round the Lake Tana shore.

Dambi is another lava barrier crossing the river, and there is a lagoon above the ford and a cataract of a few feet of fall below it, the last on the Small Abbai. The *tankwas* or reed rafts from Lake Tana can come up the river as far as the cataract. Previous European travellers had seen the Small Abbai between Dambi and Lake Tana, so there seemed to be no reason why I should do so, and I accordingly took the ford and went across country to Lijomi, which was to be the starting-point for my journey round the lake.

CHAPTER VIII

PREPARATIONS FOR THE LAKE JOURNEY

IT had for several years been my ambition to make a complete circumnavigation of the shores of Lake Tana and visit every one of its islands, churches, and monasteries. It took three years to obtain permission from the Ethiopian Government for me to do so. Even then I had only a written note saying that I could land on the islands, and I was told to make my own arrangements with priests and abbots in charge of monasteries, with whom was left the option of refusing to allow me to enter sacred buildings if they thought fit. When I had received this limited authorisation, the first thing necessary was to obtain some *tankwas*, or native-built reed rafts, as there are no boats on Lake Tana. There was nothing to guide me beforehand as to the speed and capacity of these primitive craft, but by the time I had been round the lake, a journey of 220 miles, I knew more about them. A *tankwa* with two polers will average one mile an hour, punting in shallow water of about 12 feet, a depth that the Waitos, the tribesmen of the lake, prefer. For this reason most journeys follow the coast-line in and out of every bay instead of taking the short course across the top. This suited my purpose, as I wanted to see and make a sketch-map of the whole shore outline and correct any inaccuracies that existed in published maps; and what was more important, I did not want to miss any churches or ruins. It seemed best for me to go by water while the mules and men, under my head muleteer, went round by land and met me every night at a prearranged point for camp. In the absence of any reliable

detailed maps with place-names, it was not always easy to tell the men where that point would be, and when one had decided on a camp it was not possible to be sure whether there would be a track to it along which they could get with loaded mules. I always carried light kit on the *tankwas* in case these arrangements failed, but we did not miss them for a single night the whole way round.

On Dek Island, where I stayed several days, different arrangements had to be made, as it is five miles from the shore, and I took a complete camp outfit on the *tankwas*. Not knowing the capacity of *tankwas*, I ordered two of medium size. These proved insufficient to get my men and kit over to Dak, and one *tankwa* had to return for the surplus. On my second expedition to Dak I had three *tankwas* of a size called *thirteen-bet*, and these proved ample for men, tents, and equipment.

A *tankwa* is made by first constructing the shell in the shape of an ordinary stream-lined boat but made entirely of bundles of reeds bound most ingeniously with narrow strips of the bark of the fig-tree *warka*. The whole of the hollow shell is then filled with an oblong collection of reed bundles bound together and exactly fitting it. For punting a long pole of *shambuko*, a particular kind of bamboo, is used. Rowing is done with a short pole of the same bamboo, which is grasped in the middle and used Rob Roy fashion. A bladed oar is never seen, and a great deal of energy is wasted in consequence. The making and propelling of *tankwas* is almost exclusively in the hands of Waitos, but a few Amhara living on the lake-side have learnt to construct and use them.

Tankwas can seldom be bought ready-made. You have to give the size required, and the Waitos collect the papyrus-stems, dry them, make them into bundles, and then construct the raft. It is therefore only possible to obtain *tankwas* within the vicinity of papyrus-beds. The

tankwa's life is about a fortnight, after which the bundles below water become waterlogged and heavy, progress becomes slow, and eventually the *tankwa* sinks. It is necessary to make a prolonged halt at the end of the fortnight while the raft is pulled out on the shore, bundles are spread in the sun, waterlogged stems are removed and new ones added, and the whole structure is rebuilt. This takes three to four days. As most of the payprus-beds are on the south shore of the lake, it was necessary, before I left for the north, to start with new *tankwas*.

The size of *tankwas* is reckoned by the number of bundles of reeds used in the widest part of the shells. These bundles are called *bet*, and the biggest *tankwa* made is twenty-one-*bet*. A usual size for carrying two men in comfort is eight-*bet*. The smallest size, made for one man, is called a *marocha* or a runner; it is in fact the speed-boat of the lake. Two men can get into one of these, but it is a wet and uncomfortable experience. The measurements of the thirteen-*bet tankwa* are: bow to stern, 33 feet 9 inches; deck length, 22 feet; deck width at the ends, 2 feet; deck width in the middle, 4 feet; total beam, including shell, 4 feet 10 inches.

The cost of my thirteen-*bet tankwas* was six dollars, or about eight shillings each, this including reeds and labour. The rafts were then my property, and I hired Waitos to propel them, taking two rowers to a *tankwa*, and one headman, who was given the courtesy rank of *Nagadras*.

Before I go on to my account of the journey itself, a few notes on the people and institutions with which I was to come in contact may help to explain some of the terms and allusions that occur on later pages.

The Waitos are an interesting tribe. They are obviously earlier arrivals on Lake Tana than the Amhara, but their skill in boatmanship has protected them from eviction, and they have been encouraged to remain, as the Amhara

are dependent on them for water traffic and transport.

My Waitos said that their tribe was not related to Waitos on other lakes or in other provinces. They claimed relationship only with a section who live inland on the east coast of Tana and have become cultivators. I have, however, heard that the Emperor Menelik II took some Waito families from Tana to Lake Zwai to make and work *tankwas*, and that their descendants are there now.

It was a great disappointment to me to find that the Waitos now claim Amharic as their language and Islam as their religion, and would not discuss their original tongue, customs, and beliefs, saying they had always been as they are now, although it is safe to say that they made the change in comparatively recent times. Amhara regard them as an inferior race, and the two do not intermarry. I could not see any very distinct difference in features but should consider the Waitos as Hamites. They differ from other Abyssinians in their foods, for they eat the flesh of the hippopotamus, and this animal has a definite importance in their social life, as no Waito can marry until he has killed one. As the hippopotamus is now almost extinct on Lake Tana, the Waitos will have to make a material change in their marriage laws. There are, I estimated, only two or three hundred Waitos in all living in scattered villages all round the lake, but they are most numerous in the south, where the papyrus grows. They eat the white succulent pith of the stems of papyrus, and my crew often gathered some and made a square meal off them as they went along, looking like children chewing sugar-cane. They also said that the root of water-lilies was good food. They make nets out of twine made of bark-fibre and catch and sell fish; in fact, as they do not cultivate crops, they may be said to subsist mostly on fish. I was able to give them a much appreciated change by shooting Spur-winged Geese for them, great coarse birds that I had not the courage

to try myself. They had to be picked up before the blood ceased to flow, and were then *halal*-ed—that is, the throat was slit in the name of Allah the Merciful, in accordance with Muhammadan law—and the flesh was cooked before eating. I never found any other race of Abyssinians that would eat any bird but guinea-fowl, francolin and pigeon. There is no religious ban on the eating of duck, bustard, and other birds, but it is a custom followed by their fathers and grandfathers. A few will explain that the eating of these birds is not allowed by Mosaic law, but there seems to be no mention of them in the lists of forbidden foods that I have seen.

Hippopotamus-hunting by Waitos to-day is a tame affair, the beast falling an easy prey to the rifles with which all the hunters are armed. The carcass is towed to the village, where the feast is held. It was different in the days when only spears were used and the odds were all in favour of the hippopotamus. Waito fish-traps are made with nets on frames in such a way that the fish can go in by a funnel but cannot find the way out, as in a catch-'em-alive rat-trap. Another Waito industry is the shaping of stones for the hand-mills with which every Abyssinian housewife grinds her corn.

The Waitos of my crew were good naturalists and keen sportsmen. The *Nagadras* accompanied us, rowing his own *marocha*, on which was his net, and used to catch fish as we went along. The net was 100 yards long and 6 feet deep, the bottom weighted and the top kept up by floats of papyrus. He would thrust his little speed-boat forward until he was well ahead, and choose a fringe of reeds along the shore. He paid out the net in open water just outside a reed-bed and returned between the net and the reeds, beating and splashing the water. The fish resting in cover would rush out to gain the deeper water, and, meeting the net, try to struggle through. The small ones escaped, but

those of two pounds weight got their heads through the mesh, and the gills prevented them from getting back. The fisherman then went back along the net, picking out the fish that were entangled and dropping them into the well of the *marocha*, which has a lid to prevent them leaping out. At a good place he caught thirty fish at a time, but it was more often only five or six. He then spurted past us and tried again.

The Amhara is a Semitic emigrant to Abyssinia, and it is generally believed that he came from the Yemen. Hamitic peoples from Asia came over first and had already colonised the Abyssinian plateau, and had driven the aborigines, possibly negroes, down to the lower levels. When the Amhara, a virile and warlike race, arrived, the Hamitic occupants were pushed down the slopes in their turn, and the Amhara, who are now the ruling class, occupied the best lands. So the state of affairs to-day might be briefly explained by saying that on the top of the plateau are the Amhara tribe, lower down the escarpment are found the Hamitic peoples, and at the bottom in the hot lowlands are the negroid tribes.

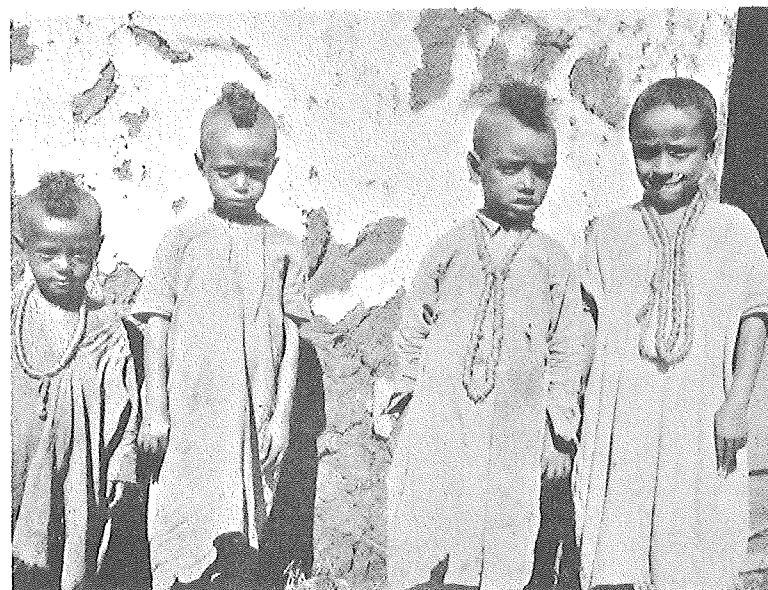
The Amhara type is tall and handsome, with a fearless, independent type of face, thin nose and lips, dark eyes, and a not very dark complexion. Ancestry is more respected than riches, and the nobility are looked up to by all classes. Old age is also respected to a remarkable degree. The standard of family life is high, but, owing to the absence of facilities for medical treatment, infant mortality is excessive. Often a father would bring a baby fifty miles in the hope that I would have some remedy for its complaint.

I was greatly interested in the various ways in which the Amhara cut and arranged their hair, and the significance of each style. A small child has the head completely shaved with the exception of a small curl at the centre of the back of the crown. At this stage there is little

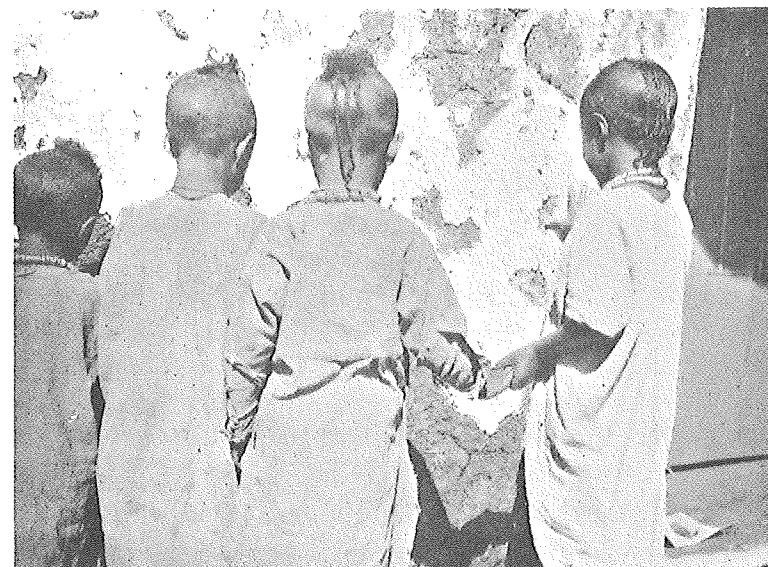
difference between boys and girls. From two upwards a girl keeps her scalp shaved, leaving a fringe of hair all round, and sometimes a curl is left in the centre of the shaved portion at the back. Each year the hair is allowed to increase in area, and the circular shaved portion, which resembles a monk's tonsure, becomes smaller and smaller until at marriageable age (fourteen) the round bare patch is about the size of a five-shilling piece, and the little curl at the back has gone. After a woman has had her first child the hair is allowed to grow all over the head and is only trimmed. Another coiffure much affected by Galla and Muhammadan women, and to a certain extent by Amhara, is parallel rows of little plaits tight to the head.

Boys from the age of two till eight years have the head shaved, leaving a band two inches wide from the centre of the forehead up over the crown and down to the nape of the neck. This remarkable custom is followed with the idea of averting the evil eye. Superstition is rife, and it is firmly believed that certain people, more particularly women, have the power of looking on children and causing—not necessarily intentionally—illness and death. The parents think that by creating a diversion in the shape of an unusual appearance on the head of a man-child, he or she of the evil eye will be induced in passing to look at the top of the boy's head instead of at his face, and he will thus escape unscathed. I was told this in all seriousness by one of my men, who gave an instance of a friend who had lost his first two boys in childhood and had shaved one-half only of his third boy's head, leaving the hair on the other half to grow. His resourcefulness met with its reward, for the boy duly grew up. Girls do not appear to matter.

From this band of hair across a small boy's head I have been able to show affinity between Abyssinian and some Arabian tribes on the other side of the Red Sea. When read-



AMHARA BOYS AND GIRLS (GIRLS ON THE OUTSIDE) SHOWING
ARRANGEMENT OF HAIR TO AVERT THE EVIL EYE



AMHARA CHILDREN, IN THE SAME ORDER AS ABOVE,
SHOWING ARRANGEMENT OF HAIR

ing Mr Bertram Thomas's account of certain non-Arab tribes he encountered in Southern Arabia I noticed that he mentioned that the boys' heads of the Sharara and Kathir were shaved in a pattern which from his description seemed to bear a strange resemblance to that affected by the Amhara and to a certain extent by other tribes of the Abyssinian plateau. I took photographs of children belonging to my men in Dangila, and when next in London showed them to Mr Thomas, who asked me to send copies to Sir Arthur Keith, and I understand that the similarity in the customs of these two peoples may point to connection between the tribes at some previous period.

After the age of eight an Abyssinian boy's hair is allowed to grow, and men have the head completely shaved every few months and wear a white cloth wrapped round the bare scalp until the hair begins to cover it again. Both men and women of all races plaster their hair with butter.

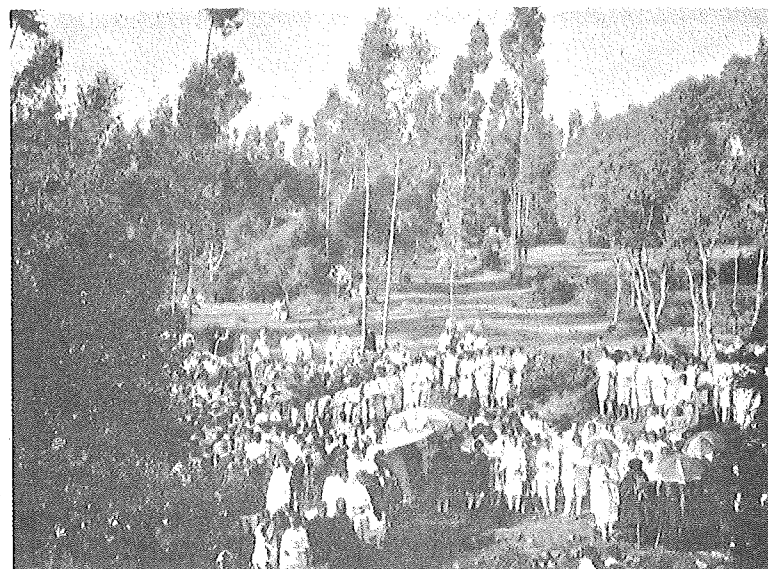
Most of the Emperors¹ that have reigned over Abyssinia have been Amhara, as also are the Rases or Dukes, the high officials, and most small administrative officials, so that when one speaks of an Ethiopian or Abyssinian one generally implies an Amhara. In the past several of the big provinces were ruled by a Negus or King, but as I have already mentioned they have gradually been reduced to a position of dependence on the Emperor, one of whose titles is King of Kings. For many years past no new appointment has been made on the death of a provincial King, and the position of Ras is the highest estate to which a noble can rise.

The Emperors claim direct descent from King Solomon through Menelik I, who became the first Emperor of Abyssinia. The Queen of Sheba is claimed as an Abyssinian sovereign, and the Ethiopian Chronicles say that after her

¹ A detailed list of Abyssinian Kings is given in the Appendix.

return from her visit to Solomon a son called Menelik was born. When he grew up he was sent to Jerusalem to visit Solomon, who acknowledged him as his own son. The youth returned to Aksum with the eldest sons of all the noble families in Jerusalem, including that of Zadok the High Priest, who were sent by Solomon to accompany Menelik back to Ethiopia. By means of a subterfuge they took the Ark of the Covenant from the Temple and carried it with them to Aksum. In every Ethiopian church to-day the Holy of Holies contains a replica of the Ark, called a *tabot*. It is a wooden casket, and its contents are said to represent the tablets of stone brought from Mount Sinai by Moses. Only the priests are allowed to see the Arks, but they are brought out once a year and are shown to the people. The occasion is the feast of Timkat or Baptism; it is celebrated in every parish throughout the country and is attended by everyone. The Emperor is present in Addis Ababa, and Governors attend in their respective districts. The ceremony lasts two days. On the first, priests in bright vestments and carrying the Ark, draped in cloth of gold, on their heads, with other priests holding huge umbrellas over them, march in procession to a river-bank, where the Ark rests all night in a tent. At dawn next morning the chief priest blesses the water of the river and sprinkles some on those around him, while those members of the crowd who are near the stream make cups of their hands and sprinkle as many of the people as they can. The procession then moves off, and the Ark is carried back to the church. As the Ark passes, onlookers throw themselves flat on their faces on the ground.

It is impossible to believe that the ceremonies appertaining to the Ark, and the universal veneration in which the Ark is held, and the fact that it is the pivot round which the Abyssinian Church revolves, can all be founded on pure legend. There must be some reality underlying the



TIMKAT CELEBRATIONS AT ADDIS ABABA

The Emperor Haile Silasi is on the left and the Abuna (in dark head-dress) on the right



TIMKAT CELEBRATIONS AT ADDIS ABABA

Priests carrying arks shielded by umbrellas

Ethiopian claim to the Ark, of which the Jews seem to have lost sight altogether after a certain period. The last reference to it in Scripture is in Jeremiah iii. 16.

Unfortunately the scholars who have translated old Ethiopian manuscripts have never been able to remove the Ethiopian Chronicles from the misty realm of legend into that of history. Some of the oldest books and manuscripts in the country were destroyed when the churches and monasteries were burnt during the Muhammadan invasion led by Muhammad or Ahmad Gran the Left-handed, in the early part of the sixteenth century. Aksum Church suffered the same fate, and there is little doubt that during those years books and records of the greatest value to students of early Christianity, and possibly much older literature than that, were lost to the world. In the second half of the fifth century and in the sixth century a large number of monks from Egypt and Syria made their way into Abyssinia and founded monasteries, and they must have brought their books with them. It seemed to me that if any libraries had escaped destruction by Gran, they would be found on the islands of Lake Tana, which would be protected by their inaccessibility except by water, for the Muhammadans were tribes from the Danakil deserts and would have had little experience of boats.

Ahmad Gran was a native of Adal, the desert lying behind the Red Sea in the vicinity of Zeila. He began the conquest of Abyssinia in 1527, in the reign of the Emperor Lebna Dengel, and in a few years had overrun the country with some 10,000 men. It was no doubt the stories of the fabulous wealth of the Abyssinians that first led him to cast his eyes towards the Ethiopian plateau, but even if it was a campaign for loot it became in effect a religious war between Christian and Muhammadan.

The Abyssinians had sent to the King of Portugal for aid, and eventually, in 1541, when the resistance of the

Abyssinians was at an end and Lebna Dengel had died as a fugitive, help came in the form of 400 Portuguese musketeers led by Christophe de Gama. Lebna Dengel's son Galawdewos, or Claudius, was gathering together the scattered bands of his father's army, and he and the Portuguese joined forces. Many bloody battles were fought, victory going first to the Christians then to the Muhammadans, and in one encounter de Gama was killed. The last fight took place near Lake Tana in 1543, when Ahmad Gran was killed and the Christian kingdom of Abyssinia was saved.

What remained of the Portuguese stayed on in the country, and their numbers were augmented from time to time by Jesuit priests who were sent with the idea of converting the Abyssinians to the Roman Catholic faith. The most tactful and able of these missionaries was Pedro Paez, who in 1621 succeeded in persuading the Emperor Susenyos to sever his connection with the Abyssinian Church and to become a Roman Catholic. The Emperor tried by every means to make the new faith the national religion, but in spite of coercion and torture he was unable to take the priesthood and people with him, and in the end, to avoid bloodshed, he had to give them their freedom to retain the faith of their forefathers, although he himself died a Catholic. His son, Fasiladas, persecuted the Jesuits and in 1633 ordered all the Roman Catholic priests out of the country. As they refused to go he forcibly expelled them, and arranged with the Bashas of Massaua and Suakin to close their ports against any Portuguese that tried to enter Abyssinia. The memoirs of such of the Fathers as survived and returned to Europe were published, and it was by their writings that much of the history of the country was made known to the outside world.

The Ethiopian monks of to-day are divided into two main sects, the followers of Takla Haimanot and those of

Eustathius, both famous ascetics. From the Ethiopic manuscripts it seems that the split between them took place over a difference of opinion on the nature of the substance of the body of Christ. The followers of Takla Haimanot maintained that Christ was a God who proceeded from the Father alone and that He was joined to a human body by which He became the Messiah. The Eustathians held the opinion that Christ was perfect God and perfect man, and that His body was formed of a special substance which was entirely different from ours and was not derived from His Mother, the Virgin Mary.

I collected all the information that was possible, but it seems hopeless to obtain any clear definition of the differences between the sects even from the better-educated monks with whom I talked. They adopt the attitude that their own sect is the right one and ignore the existence of any other. One monk, who had just returned from a pilgrimage to Jerusalem, told me that Takla Haimanot was made a monk by a tenth disciple, or one of the tenth generation from Saint Aragawi, a religious leader of the sixth century, and that the difference between the doctrines of the two monastic divisions was that Takla Haimanot preached on Saturday and Sunday because Christ had done so, but Eustathius would not preach on either Saturday or Sunday.

In the sixth century the most famous monastery was that of Debra Damo in Tigrai, under the headship of Saint Aragawi. Saint Takla Haimanot was born in Shoa, supposedly in the seventh century, and after entering a monastery at Lake Haik, near Dessie, he went to Debra Damo. He left it about the age of fifty, and after making pilgrimages to the Holy Land and Egypt, set out on a missionary tour through Shoa and Damot in Abyssinia and converted large numbers. He retired to finish his days in extreme austerity in a cave, eating only leaves and drinking only

water. He was buried on the spot, but seven years later his remains were removed to the new monastery of Debra Libanos, founded in his honour by his brother Ezkias. The majority of monasteries follow the rules of Takla Haimanot.

Saint Eustathius also came from Debra Damo. After living for some time in Tigrai he went to Armenia and died while doing missionary work there.¹

A cone-shaped pile of stones is often seen by the roadside opposite the entrance to a church or on a road at a place where a church first becomes visible, even if it be on a hill-top half a mile away. I never saw anyone put stones on the pile, but some of them looked as if they had been added recently. I asked several Christian Abyssinians what was the significance of these monuments, but got no satisfactory explanation. Either they did not know or they were ashamed to acknowledge that such a rite still existed. The piles are too definitely placed near churches for it to be claimed that they are not intended to be associated with them. I came to the conclusion that they are an interesting pagan survival grafted on to Christianity. Apparently the heap of stones has had a mystic significance in Africa from the earliest times to the present day. Mr Thesiger met with them in the Danakil Desert, and Mr Francis Rodd told me that he had seen them in the Sahara.

A priest gave me the following details of the Abyssinian priesthood. A boy destined for the Church is educated at a Church school. He learns to read Giz as well as Amharic, and carries out light duties in the church. He is next taken with many others to see the Abuna or Archbishop, who approves him and appoints him deacon. From this he is promoted to the Kesena or priesthood, to which he is ordained by the Abuna; above this comes the Kumsena,

¹ I am indebted to the Rev. A. F. Matthew for some of these notes from various sources in Abyssinia.

the equivalent, I suppose, of our Rural Deans; then the Kursena, perhaps answering to our Canons, from which the Pappas or Bishops are appointed.

The Abuna or Archbishop is brought from Egypt and is not an Ethiopian, but a Coptic priest appointed by the Patriarch of Alexandria. He is also known as the Lika Pappas. The priest mentioned also a Lika Kahnat, but I am not sure what his position would be. The Echegai, the head of the monks, is appointed by the Abuna and may be either a priest or a monk. The head of a monastery or group of monasteries is a Memhir, literally a teacher, the equivalent of an Abbot.

I had been present at the reception ceremony on the arrival of a new Archbishop or Abuna in Addis Ababa in 1929. He brought with him four Bishops who were Abyssinian priests that had been chosen for this high office and had been sent to Egypt to be ordained by the Coptic Patriarch. Since the fourth century, when Christianity was introduced into Ethiopia, only one man of Ethiopian birth has been made Archbishop, and that was Takla Haimanot. All the rest have come from Egypt, and this was the first time in the history of Ethiopia that Ethiopians had been raised to the dignity of Bishop in their own Church. It will now be possible, if that is the wish of the Emperor and the Church, for the four Bishops to elect one of their number to be the Abuna, without sending to Egypt for one. From the Abyssinian point of view the ceremony we witnessed was therefore a very important occasion. After the presentation of the new Abuna, the four Bishops were presented to the Empress Zawditu, who stood up to receive them, a very unusual gesture of respect for an Ethiopian sovereign to pay to her own subjects. Afterwards they were introduced to His Highness Ras Tafari, the Regent. The Abuna and the Bishops took up positions near the throne, and the Rases and nobles, and members of the

Diplomatic Corps who were present as guests, were introduced to them individually.

The rules that regulate the marriage of priests prescribe that they can marry once and are expected to do so, but if the wife of a priest should die he cannot marry again. It is not necessary for a man to be a celibate to be accepted as a monk. Many monks that I met were men who had lost their wives. Once they have entered a monastery they cannot marry again. On the other hand, the majority of monks are celibates. When a man is accepted into monkhood he is expected to place all his worldly goods in the monastery common fund.

Nuns are usually women who have lost their husbands and henceforth attach themselves to some church. They are not allowed to marry again. All the nuns I have seen are well above middle age, and most are old women. They wear the monk's white skull-cap and carry a long thin forked stick with a V at the top. This is used as a prop under the arm to support them during the long church services.

The feast of Maskal, the Cross, is celebrated annually in Abyssinia, and is considered one of the most important religious festivals of the year. It commemorates the finding of the True Cross in Jerusalem, but I am not sure whether the Abyssinian date is considered to be the anniversary of this event or whether, as is more probable, it commemorates the anniversary of the arrival of a piece of the True Cross in Abyssinia, which took place during the reign of David I (1382-1411).

Many Abyssinians believe that the Cross was found by an Abyssinian princess. The discoverer was the Empress Helena, who is believed to have been a princess from Britain (one legend says from Colchester) and who was the wife of the Roman Emperor Constantius Chlorus and the mother of Constantine the Great. She went to

Jerusalem in A.D. 326 to rescue the Cross from the heathen, and when she had found it a portion of it was enshrined in the basilica of the Church of the Resurrection in Jerusalem. The rest she carried to Rome, where a Church of the Holy Cross was built.

CHAPTER IX

LIJOMI

November 29, 1932

ALTHOUGH it did not seem a matter of urgency that I should see the last few miles of the Small Abbai, I had arranged that two *tankwas* and their Waito crews from Zegi should await me at Dambi, as it would have been pleasant to float down the current and through the estuary on to the lake. This plan was frustrated, however, by Gerazmatch Babil, the chief in charge of the area on the left bank, who lived at Mokal. He was in truculent mood, and sent the Waitos away with their *tankwas*, forbidding them to come into his territory, whereupon they rowed back to Lijomi, which is beyond his boundary, left the *tankwas* there, and walked back to Dambi to tell me what had happened. Lijomi suited me as well as any place for a starting-point for the journey round the lake, so to Lijomi we all went, and as Mokal was on the lake shore, I determined to pay the official a surprise visit by water before doing anything else.

November 30th was spent in Lijomi. This was the earliest date at which it seemed wise to arrive on the lake shore, as reports from lake-side dwellers had convinced me that earlier in the month the malarial mosquitoes were still abroad, whereas in December there was little risk either of the men going down with fever or of the mules getting horse-sickness. There had to be a grand rearrangement of kit, since we were henceforth to travel by *tankwa* on the water instead of by mule on land.

With the mosquitoes in my mind, I chose a mound for

the camp that was six feet above the lake-level and a few hundred yards from the water, hoping that we should be free from insects. Nevertheless as soon as dusk fell they came in swarms, but although we were nearly driven mad by their attacks they were not malaria-carriers, for there were no cases of fever among the men.

A small extinct volcano 200 feet high, called Zibdan Tarara, with an extensive view over the lake, was close to the camp, and I reached the summit by an easy climb to get bearings. The crater is seen as a shallow basin three feet below the rim, which is a perfect circle. From this point one can see clearly the peculiarity of the flow of water through the lake, a spectacle that was pointed out by a priest who came with me. The local theory is that the water from the Small Abbai does not mix with that of the lake but flows by a semicircular course through Tana and emerges at Bahrdar Giyorgis, in the south-east corner of the lake. It certainly appears to do so. I saw a dark circular streak dividing the lake into two; brown water was lying towards the land, and beyond the line was the blue water of the lake. There was not a thin ribbon of brown muddy water running through the blue. The division would only be visible during the flood season and for a few months afterwards, as the silt drops quickly and the water of both lake and river would then be clear and blue. Afterwards, when I arrived on Dek Island, there was further evidence that the stream strikes its south-west corner, but this will be mentioned in the description of that island.

Lijomi Church, dedicated to Saint Gabriel, is built on a toe of Zibdan Tarara, on what seems to have been part of the lava-flow from the crater. The priests told me that the first church had been founded by San, a local squire, during the reign of Yekuno Amlak (1268-1283), on low land near its present site. This building had been repeatedly demolished by wind and waves from the lake, and in the

reign of Fasiladas (1632-1665) it was removed higher up the hill and is now 60 feet above the water. My informant remarked that the lake-levels were higher in those days, and it is a tradition that some low-lying level flats to the east of the church, which now contain millet fields and coarse pastures, were once under water and formed part of the lake. My own camp site, which was six feet above present water-level and about four feet above high-water-level, was said to have been once covered by water. This led me to the discovery, which was confirmed later in other districts, that since the reign of Fasiladas three hundred years ago the lake has gone down six feet. There can be only one explanation: the sill formed by lava-flow which dammed the old valley of the Blue Nile at Chara Chara, near Bahrdar Giyorgis, and formed Lake Tana, is being eroded away comparatively rapidly, and the lake-levels are consequently falling, a process which, if allowed to continue, must eventually drain the lake.

In the churchyard I was shown a lemon tree, the fruit of which is believed to have healing properties. It was growing on the grave dug for a man who had been to all appearances dead. His corpse had been brought to the graveyard by his sorrowing relatives and was left at the side of the grave while they adjourned for the preliminary ceremonies of the wake, which took the form of light refreshment before the actual interment. Some friends arriving late for the funeral and carrying a picture of a saint passed by the bier, when, to everyone's utter astonishment, the dead man arose and walked with them. As bread and beer are always supplied by the relatives for the refreshment of the mourners, he was able to take an unexpected part in his own funeral and lived for several years afterwards.

Another tree, a fine specimen of the cedar, called in Amharic *ted*, grows near by and is renowned far and wide.

An oath taken under it is considered as binding, and men who have quarrelled swear friendship beneath it, breaking off a twig from its branches as a visible sign and swearing by Saint Gabriel that they will respect their oath. There was also a small thatched hut containing two hand-mill stones where wheat is ground for the Communion Bread.

The priest at Lijomi told me the story of David and Goliath, which was essentially the same as the Bible version, but his tale of the Exodus seemed to suggest that on leaving Egypt the Israelites divided; some journeyed to Palestine, and the others, who eventually became the Abyssinians, journeyed direct to Abyssinia. There were two Arks, one of Mikael, which had been made in Egypt, and one of Sina (Mount Sinai), which was the original and which had gone to Jerusalem. Menelik I, when he went to Jerusalem, had substituted one for the other and brought Sina to Ethiopia. It was first placed on Tana Kirkos Island on Lake Tana and was then taken to Aksum. This is a variant on both the biblical story of the Exodus and the Ethiopic legend of the removal of the Ark from Solomon's Temple, in which no mention is made of an Ark of Mikael made in Egypt, but if there are any elements of fact in the priest's version it would give a possible explanation of the appearance of the Semitic Amhara on the Abyssinian plateau.

I enquired whether there were any books in any of the churches on the islands, and was told that it was known that many historical books once existed in the library of the monastery of St. Stephen on Daga Island, but that the monks there had been prevailed upon, either by force or bribery, to send some of them to Aksum.

A certain much-prized volume had for years been kept in Lijomi Church. It was coveted and claimed by a woman, a relative of a powerful provincial Governor, so it was taken for greater safety to the monastery on Daga, on which no

woman may set foot. The lady, however, traced it and pressed her claim and demanded that the case should be tried by law. The proceedings took place on Dek Island, and the woman was present. The book in dispute had to be produced, but the wily monks kept it in a *tankwa* near the shore and would not allow it to be landed until the hearing of the evidence was ended. The verdict was given against the woman, and the book was returned to St. Stephen's Monastery.

CHAPTER X

LAKE TANA: THE SMALL ABBAI ESTUARY

December 1, 1932

IT had been my intention to make my circuit of Lake Tana by setting out eastward on the *tankwas*, travelling along the east and northern coasts and down the west coast, and returning to the point from which we started. As, however, Gerazmatch Babil, the chief who had ordered my *tankwas* off his land, had to be dealt with without delay, I determined to go first westward, travel round the peninsulas of the Small Abbai estuary, call on the Gerazmatch, whose village lay on the lake shore on the other side of the Small Abbai, and return to Lijomi. The Waitos assured me that this could easily be done in a day if we started early.

Gerazmatch Babil is a great-grandson of King Theodore, and being of the blood-royal he commands more respect in the neighbourhood than the unimportant office he holds would otherwise justify. He is well known on the western side of the lake as a bold outlaw, a position which he seems to exchange in alternate years with that of Government official. His strategical position during the periods when he is against his Government could hardly be improved upon. His residence is in a sparsely inhabited part of the lake shore, surrounded by reed-beds and lagoons and swamps well known to his retainers. When a Government force is sent to arrest him he takes to his *tankwas* and disappears among the reeds.

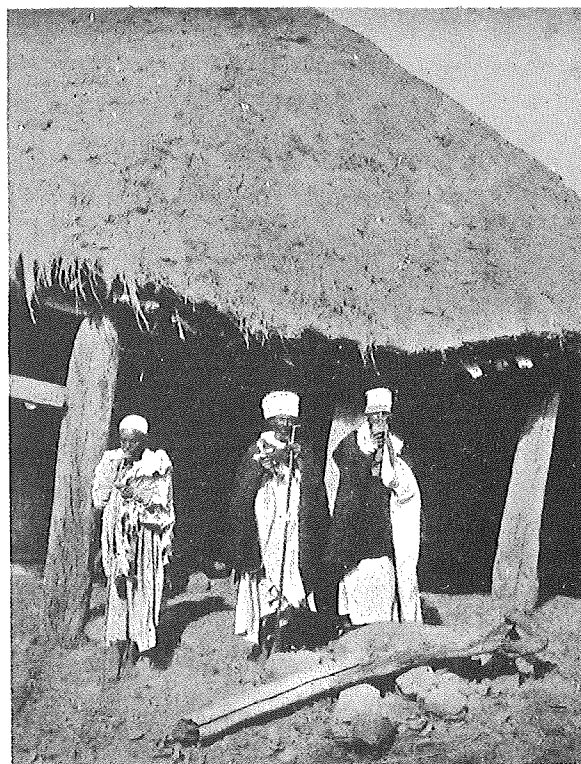
I left my tents standing at Lijomi camp and embarked on two *tankwas* with two Sudan policemen, Zauday, the interpreter, and Turuna Habasha, the head muleteer, four

Waito polers, and Nagadras Ayana, the head Waito. One Waito stands at each end of the *tankwa*. When the work is heavy both men pole, but usually the one in the stern punts for two hours while the other rests, and they then change places.

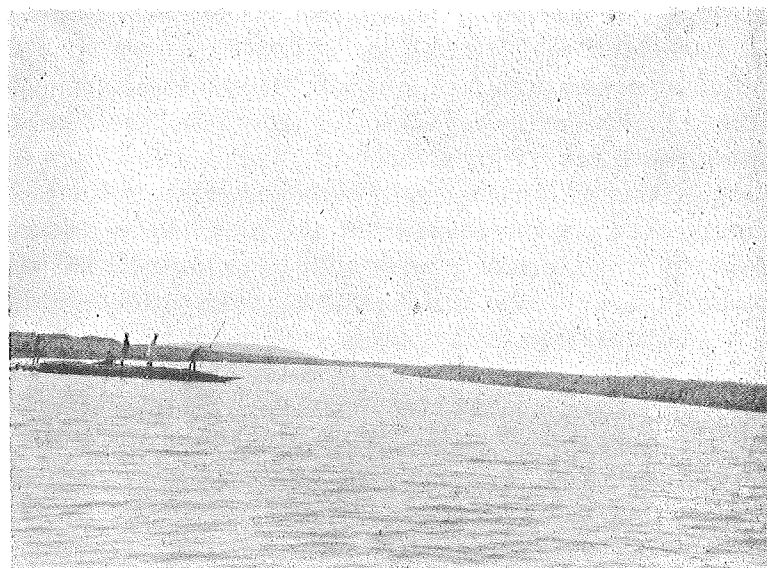
We had breakfasted by firelight, and as we left the shore the first gleam of dawn was showing on the eastern sky, and the thermometer indicated a temperature of 48° Fahrenheit. We followed the south shore of the lake for two hours, keeping a quarter of a mile from the land, where the depth of water was 8 to 12 feet, which the Waito considers the ideal conditions for *tankwa* travel. This took us to the bend where the two narrow peninsulas of land and papyrus-bed run out three miles into the lake, one on each side of the Small Abbai. Our gondoliers kept close to the edge, never exceeding a speed of one mile an hour; this gave me ample opportunities of examining these remarkable promontories from the water at close quarters, which, so far as I know, has not been done by any European before. They are nowhere more than a few feet above high-water level, and seem to be low mud-spits almost obscured by the high papyrus-beds that grow on the sides all round them in mud that is covered by about two feet of water.

A glimpse was obtained of Waito Menda, a small Waito village of a few huts, the foundations of which are no more than three feet above high-water level. Surrounded as these dwellings are by immense reed-beds and swamps, the bad reputation which they have for mosquitoes can be understood. Waitos must be more or less immune to malaria, although they told me that they got it sometimes.

A short distance farther on is Abbai Dar, an Amhara hamlet. Since the majority of Amharas dread the idea of going into a malarial area, it is difficult to understand why this little colony has established itself in this out-of-the-way swamp, unless it is for some unlawful purpose. The



NUN (LEFT), PRIEST (CENTRE), AND MONK (p. 104)



TANKWA OF THE EXPEDITION CROSSING THE SMALL ABBAI ESTUARY
IN LAKE TANA

third and last settlement is Gilgil Abbai, a similar hamlet on the left-bank promontory. This resembles a pirates' retreat, for it is on an island: a channel or by-pass has been made through the left-bank promontory by the river, leaving the end of the spit cut off from the mainland.

After four hours of poling from Lijomi we were told that we were approaching the point, and we expected to see the actual outflow of the Small Abbai. We did not go outside the last beds of papyrus but passed along a narrow channel between them, forcing the *tankwas* through in places, a task for which their sharp-pointed bows are well adapted. We then found ourselves in open water, crossing the Abbai at its mouth. To our left was the river channel, visible for a quarter of a mile as a lane among tall papyrus; to our right was the bar with an expanse of silt-laden water flowing over it that looked shallow, for here and there were patches of papyrus colonising the mud, where its formation and the depth of water were suited to the plant's requirements. In front of us was an outlet between reeds leading past the end of the left-bank promontory to the open water of the lake. The river channel where we crossed the current was too deep for poling, and the Waitos took out their short bamboo poles and rowed for 50 yards until they touched the 12-foot depth again on the other side. I had often pictured this estuary as an expanse of mud flats teeming with wild fowl, and was surprised to find no birds except a white pelican. The journey had provided little in the way of bird life beyond a few herons we had disturbed, and the only compensation I got for a disappointing day's bird-collecting was the securing of a Pigmy Goose from a party of six. This was the only time I saw the bird in Abyssinia.

The formation of the west side of the left bank of the peninsula was a succession of bays, created by the papyrus. We crossed one of these bays and then struck across the

open water straight for Mokal, which now appeared as a forest-clad point about three miles away. It was eleven o'clock, and I was relieved to see that the Waitos were not going to follow the shore contours any longer; they had got out their short poles and were settling down to row the rest of the way. They explained that the breeze from the lake to the land had set in and was unlikely to change its direction again that day, and there was therefore no risk of our being blown out into the open water, and what drift there was would help us forward in the right direction. It took an hour and a half to reach Mokal, and it was not until we were within 200 yards of the mainland that the punt-poles could touch bottom in 12-foot depth of water and poling could be commenced again. The polers were unconsciously taking soundings, as I had noted certain marks on their poles which served up to a depth of 15 feet, after which the water was too deep for poling. I took no soundings myself on this day but later arranged a fishing-rod and line with a rock weighing three pounds on the end. The touch of the rock on the bottom could be distinctly felt, and the slackening of the line was visible; a knot was then tied on the line, marking where the surface of the water came, and it was reeled up and measured accurately with a tape. This made it possible to sound the depth without stopping the *tankwa*, as the rock was cast forward by the rod at each throw to avoid drag on the line.

It took an hour to find the entrance to the village at Mokal. Now that it came to the point, the Waitos were afraid to meet Gerazmatch Babil and even suggested returning to camp. The lake shore was lined with loose scoriaceous lava cubes, and outside this was a dense fringe of reeds. We coasted eastward to the angle of a bay and discovered a small *tankwa* landing-place with a path leading into the forest, which we followed. We soon came to the village of the Gerazmatch, and I sent the interpreter

ahead to announce my arrival. Gerazmatch Babil, who was taken aback at our sudden appearance, blustered a good deal, but when he saw me close behind with my two police he changed his mood, accepted the inevitable, and received me politely and invited me into his house. The interpreter had intended to take him to task over a matter of some six pounds of sugar belonging to him that had been taken by highwaymen from my mail messengers, who had to pass through an outlying part of Babil's territory, and there were grounds for suspecting that the stolen sugar had found its way to Babil himself. Owing to the theft the interpreter had had a sugarless fortnight in Dangila, for it is unobtainable in North-west Abyssinia. One of his friends, hearing of his plight, had sent him six pounds of sugar to help him out, saying that he had been given this by a friend of his but had no use for it. This coincidence seemed strange, but on enquiry we found that the interpreter's friend had had official business with Gerazmatch Babil, and communications had been passing between them, and there was no doubt that my interpreter had received his own sugar back in the form of a gift by the unexpected hand of his friend, who had sent it as a kindly action in complete innocence of its history. The interpreter had been rehearsing the scathing words with which he proposed to accuse Babil of complicity in the theft, but after the trouncing he got at the gateway speech left him, and as far as he was concerned the incident was considered closed.

We were taken into a reception hut, where over a glass of *tej* and coffee all affairs connected with my journey were settled satisfactorily. Babil is a small, well-bred-looking chief with a strong face and a manner that shows he is used to command and expects to be obeyed. He can raise a large number of riflemen, but on this occasion he had had no chance to summon them, and none were in evidence. He invited me to stay the night, saying that the wind was

high and the sea rough, and that we should have an unpleasant journey in the dark, but having nothing more to arrange, and with the whole lake journey in front of me, I decided to return to the camp.

We got away at 4.15 P.M., an hour at which from the Waitos' first estimate I had anticipated being back in Lijomi. The wind prevented us from rowing across the first bay by the line by which we came, so we followed the mainland shore at first, but managed to row and cut off a short corner, and struck the left-bank promontory near Gilgil Abbai. Five hundred yards from the edge of the papyrus there was 15 feet of water, and in five minutes we were 400 yards from the edge, with water 12 feet deep, and could start poling. It was five o'clock and I was anxiously watching the fast-falling sun. From now it was a struggle in the teeth of the wind. Both *tankwas* were repeatedly blown into the reeds, regardless of the men's strenuous efforts to keep them on their course, and time had to be spent in extricating them. Big waves were rolling the rafts into a very uncomfortable motion, and some of my men were sick. The *tankwa*, composed as it is of a collection of reed bundles, has a supple frame that conforms to the crest and trough of the big waves, and travelling under these conditions resembles riding on the back of a sea-serpent. Darkness came on at 5.50, but we were grateful for the light of a small moon for another two hours. There was little to be seen but what seemed an interminable succession of bay after bay among the papyrus. Often we were blown into them against our will, and although I had ordered the two *tankwas* to keep together, we soon lost sight of the other and it became a case of each one for himself. Whenever we touched the reeds after it grew dark we were attacked by voracious mosquitoes which bit any exposed flesh. The Waitos wanted to drive the *tankwas* into the middle of the reeds and wait till the wind went

down, which is what they themselves do, but the wind might not have gone down until dawn, and even an hour's battling with the insects would have driven men who are not accustomed to them mad, apart from the risk of malaria, so I decided to go on at all costs. At first it had seemed that the bundles of reeds in the *tankwas* must be torn asunder and scattered by the waves, but they give with the motion and hold together in a surprising manner, and it was a comfort when this was realised and confidence returned.

These conditions continued until 7.30, when to everyone's intense relief we passed the last bay and turned the end of the promontory to cross the Abbai mouth, where the full force of the gale was broken by papyrus-beds. Here, at last, we were able to call a halt. We had not seen the other *tankwa* for over an hour and did not know whether it was in front or behind or had sunk. After an anxious wait of what seemed an hour, but was actually fifteen minutes, during which we tried shouting and making signals by striking matches, both equally ineffectual, the second *tankwa* loomed out in the gloom. We stayed there for a short rest and readjustment of wraps, for it was bitterly cold, and not having expected to be out after sundown we had no food and were hungry as well. Our way now lay down the eastern side of the peninsula, which was sheltered, and our return to camp with no light but the stars was uneventful. We reached the tents an hour before midnight.

I had now accomplished my first object of seeing the Small Abbai estuary from all sides. To all appearances the two promontories have been formed by the deposit of mud and silt which is brought down by the river in the rainy season and dropped as the speed of the water slackens on meeting the lake, throwing the land-spits farther and farther out into the lake as the years go by. This theory

satisfied me until I had examined several very similar rivers flowing into other parts of the lake under what seemed identical conditions, but which were forming no mud peninsulas and had only a normal semicircular mud-bar at the outlet. It therefore seems that a less obvious origin for the two peninsulas of the Abbai estuary may have to be found.

At the mouth of the Small Abbai there was an extensive bar over which shallow water was flowing, but there were no dry mud-flats.

As we had poled most of the way I was able to ascertain that, at least wherever our poles touched deposit on the floor of the lake, it was sand, not soft mud. Another point that was noticed here was that there is relatively a very small area of silt deposit round the Small Abbai estuary. The polers only found shallow water up to 12 feet deep by keeping near the shore and close along the sides of the peninsulas. As soon as they drifted out 100 yards from the edge they were in water too deep for poling, which illustrates the fact that the amount of silting-up going on in the lake is infinitesimal when the vast expanse of water is considered.

CHAPTER XI

DEK AND DAGA, AND AN UNEXPECTED JOURNEY TO GALLABAT

December 3, 1932-March 15, 1933

Now that the Small Abbai estuary had been seen and mapped it was possible to go ahead with the main lake journey, and the first islands to be visited were Dek and Daga. It was necessary to make plans for an absence of several days from the mainland, as they were six miles out in the lake.

On December 3rd the camp was moved from Lijomi to Gomti, the point opposite Dek Island which is the place of departure for *tankwas* going to either Dek or Daga. I went with the *tankwas* and was punted along the shore, and was able to add an uncharted rock to the map and get cross-bearings to fix its position. It is a small island of bare rock visible in the open sea about two miles from Lijomi. The Waitos called it Warka Dengia (Fig-Tree Rock), although I saw no sign of a tree on it. It was only visible in certain lights when the sides, which were white-washed by the sea-birds, reflected the rays of sunlight. I only saw it from a distance and estimated its height as 6 feet and width 20 yards. If sailing vessels or motor-boats are introduced on the lake, when it becomes a reservoir, it will be useful to have it marked on the map, for it lies isolated in an otherwise open piece of water and its presence would not be expected. I found it interesting for the probability which it suggests that this part of the lake is shallow for as much as two miles from land—in fact I

was coming to the conclusion that Lake Tana was not very deep anywhere.

At Gomti, Nagadras Ayana announced that both *tankwas* would have to be taken to pieces, the papyrus-stems dried, and the rafts re-made. They had been in commission a fortnight, including the time they had taken to come from Zegi to meet me. He estimated that they would be in dock for four days. We could do nothing but wait for the repairs to be effected.

Gomti is a grass-covered headland in the district of Sakalat. It was a pleasant place to camp in and was close to the lake shore, but the mosquitoes were very troublesome. After a few days there I was asked to go and inspect my donkeys, which had lost most of the hair off their legs up to the knee. The men attributed this to the effect of the bites of thousands of mosquitoes, and I think it must have been the only explanation. We eventually moved a little farther from the water to slightly higher ground where mosquitoes were not so numerous.

At Gomti we were shown a method of preventing seasickness which had a kind of logic in its favour. A local farmer had sold a bullock to a man on Dek Island and had to deliver it. I saw the animal guarded by a boy and noticed that it had a muzzle on. It seems that cattle are liable to be sick when being taken over the water by *tankwa*, which is not surprising. If they are sick they die, and according to local reasoning if they have nothing to be sick with they can't be sick; therefore they ought to do the voyage on an empty stomach. Accordingly this animal was muzzled and compelled to fast for twenty-four hours before being embarked. It was then thrown and trussed with leather thongs so that it could not move a limb. The *tankwa* was brought close to the shore, the bullock was laid on it and strapped tight on the deck, and off went the men with their strange cargo.

We also saw one of the largest *tankwas* loaded with coffee on the regular run between Zegi and Delgi in the north-west corner of the lake. The coffee is loaded in big leather sacks, which are emptied at Delgi into smaller ones suitable for donkey- or mule-loads, and caravans transport it from that point to Gallabat on the Sudan frontier. From my own Waitos, who were Zegi men, I was able to obtain accurate details of this *tankwa*. It was a twenty-one-*bet*, capable of taking fifty mule-loads; as a mule carries about sixty pounds each side, we get a total weight for the cargo of about two and three-quarter tons.

There was ample opportunity, during our enforced wait, to gain some experience, which proved very useful afterwards, of the winds on the lake. They are very regular, and exceptions to the rule are rare. At dawn, or just before, there is dead calm; after sunrise a gentle breeze comes from the land towards the lake which does little more than cause a ripple on the surface; at ten o'clock a "sea breeze" starts which causes a different ripple on the surface, which the Waitos, ever watchful for the winds, call the two winds fighting. The sea breeze soon becomes the stronger and increases hourly until there are waves six feet apart, with a height of one and a half feet between the bottom of the trough and the crest of the wave. This stage is reached about noon, when the surface of the lake becomes flecked with the white of crested breakers, and there is a continual roar of the surf on the shore. At this time travel by *tankwa* is unpleasant and may be risky. The wind dies down at sunset.

This sequence happens, as I was subsequently able to confirm, all round the lake. It follows, theoretically, that when the breeze is coming from the lake and is moving to the shore on all coasts at one time, there must be a place in the centre of the lake where the wind is starting to blow in all directions. I asked the Waito,

Nagadras Ayana, about it and was surprised when he claimed to have seen it and referred to it as a wonderful sight, though he wisely declined to give himself away by describing in detail what he was supposed to have seen. It is true that he was one of the few men who had crossed the lake in the widest part of the open water, a distance of 30 miles from Gorgora on the north shore to Dek Island. It is not often attempted, and then only in light unloaded *tankwas* for very special inducements. The regular breeze from the lake can only be accounted for by the warming of the land after sunrise, the movement taking place from water to land as soon as the land becomes warmer than the water, and the air in consequence begins to rise.

On December 8th the expedition left Gomti to cross over to Dek Island, which appeared on the horizon as a long, dark row, which the field-glasses showed to be trees. On the right was the more conspicuous cone of Daga Island. We had been urged to start as early as possible to make use of the dawn calm, and later of the hour or so of breeze from the land which would help us in the right direction, and it was hoped that we should be under the lee of the island before the "sea breeze" rose, as otherwise it would delay our progress and might even blow us back again. We had two Waitos on each of the two *tankwas*, one sitting in the bow and the other at the stern, pounding the water with their futile little rowing-poles. My men, bored at the slow rate of progress, took up spare poles and joined in amidships, and the speed was slightly accelerated. We had to leave one load and some men behind, as the kit was too bulky to be loaded with safety. It was arranged that one of the *tankwas* should return in the evening to fetch them, and a messenger was sent to the Waito village in Zegi ordering a third *tankwa* to be built as soon as possible.

I took careful soundings of the depth every half-hour, and as the times of embarkation and landing were noted, it

was possible to calculate the position of each throw of the line. The results showed an even downward slope of the lake floor to the middle of the crossing or $2\frac{1}{2}$ miles from land, where the greatest depth, 35 feet, was obtained, and an equally even rise to the island. My readings showed a much shallower lake than those obtained by Stecker, who went to Dek from Adina, travelling west of my line. He gives a range from 32 metres (104.9 feet) to 47 metres (154 feet). This is far deeper water than I was able to find anywhere round the lake. I cannot speak of the depth in the middle of the open lake, say 15 miles from land, where no one has ever been, and where, as Stecker suggests, the deepest water may be found, but I did take careful soundings about two miles from land south of Gorgora, and my highest reading was 43 feet.

It took two and a half hours to reach Dek, and we landed at Gadna, a small parish on the south shore, and found a low shore-line of big loose blocks of scoriaceous lava, of which the lower stratum of the island is entirely composed. Along the rocks runs a conspicuous white line formed by the decomposition of some minute plant or algae and marking the high-water limit of the last flood season. Dek is about 3 miles in diameter, and the shore-line on each side is about $2\frac{1}{2}$ miles long. As its corners are round, the shape of the island is more or less an irregular circle. A thin layer of soil, a red loam, covers the lava stratum and supports a thick vegetation of bushes and big trees. The land is rich and 75 per cent is cultivated, the main crops being *tef* and *dagusa*, the Abyssinian dwarf millets, but I saw small patches of cotton and coffee. More corn is grown than is needed by the people in the few villages on the island, and the surplus is taken by *tankwa* for sale in Zegi on the mainland, where the cultivators grow coffee and no food crops. Each field of corn on Dek is a clearing of an acre or so in scrub

forest, and is divided by a boundary hedge from the next.

The surface of the island is almost flat; even the highest land, which is in the middle, is not more than 30 feet above high lake level. For this reason mosquitoes can penetrate everywhere and are a plague all over the island; men living a mile away from the water said that their village was full of them. They also said that the island was never free from mosquitoes, but if there was one month that could be considered better than another it was January. My first camp was pitched in a *dagusa* field a hundred yards from the lake on a rise of five feet above the water, and after sunset and all night long mosquitoes made life a misery. Dining that evening was most difficult, as both hands were required to keep them off one's neck and face. I had to beat a retreat to bed, where, having slain all that had already got inside my mosquito-net and were waiting for me, and having tucked it down all round, peace reigned and I was able to write up my notes. My unhappy men rolled themselves in blankets, but they said that the mosquitoes got inside and went on biting, and they did not get any sleep during the nights we remained on the island. On the second night we got some relief by keeping smoking wood embers in the tents. I made a representative collection of the mosquitoes and sent them to the Natural History Museum, South Kensington, where they were kindly examined by Dr. Edwards, who reported that there were several different species, none of which had been proved to be carriers of malaria, though one was suspected of being so.

It is certain that a malaria-carrying mosquito exists on Lake Tana. All men who live there get the fever, and I myself had a virulent attack of malaria when camping on the north shore on June 8th, 1926. The particular species that causes it seems from experience to appear only from the month of May until November.

The islanders said that they suffered from fever during

the rains, but that the worst time was at the beginning and end of the rains, which agrees with the fever period in other parts of Lake Tana and indeed all districts where malaria is prevalent on the high plateau, a period which I had made careful plans to avoid.

An attempt to discover what animals, birds, and vegetation were to be found on Dek promised to be interesting from the point of view of colonisation. The fact that they proved to be confined to such fauna and flora as can travel on or over the water, or be carried there, seemed to lend weight to the theory that this volcanic island is of comparatively recent geological date and is probably contemporary with the lava-flow that dammed up the old valley of the Blue Nile and formed the lake, and not the top of a hill that was in existence before. The Antelopes were not represented although the small bush-loving Duiker is plentiful on the mainland. So is the Spotted Hyena, but there are none on the island, and the carcasses of cattle that die there lie where they fall until they decay, whereas on the mainland they would be completely cleared up by these scavengers the first night, and only a few bones would remain.

I was able to collect specimens of a diurnal and a nocturnal rodent that are found in the cornfields and do damage to the crops. They are similar to the field-rats seen on the mainland, although in the time that the colony has been isolated on the island they may have developed racial differences. There is a possibility that they were brought over concealed among the bundles of reeds in *tankwas*.

At dusk my attention was directed to one of the big fig-trees called *warka*, from which issued a constant squeaking such as is made by flying foxes when bickering over their food. I had not seen any colonies of flying foxes or fruit-bats in Abyssinia, but on approaching nearer I could see their large forms flying in and out of the trees, and the

next night I was waiting for them with my twelve-bore gun. They did not come until it was almost too dark to see them, and I had to do some very quick snap-shooting, cartridge after cartridge being fired without any result. I then tried getting the moon in line and shooting at the moment when one passed in front of its disc. I ended with twenty-eight cartridges expended and one specimen of the flying fox. I hoped that it would be a new species, but it was exactly the same as those I had seen in the Sudan.

Domestic cats were seen in the villages, but there were no dogs. It appears that the islanders have placed a ban on the importation of dogs because some went mad and bit people, and they have been prohibited ever since. I asked the man who told me this story if they were not afraid of their cats going mad, and he collapsed in peals of laughter, explaining that he had seen dogs that had gone mad but had never even heard before of a mad cat.

Most birds can fly over the five miles of water, so very little can be deduced from their presence on the island, but the guinea-fowls and francolins, birds of short flight that are numerous on the mainland at the nearest point, are absent.

The reed-beds that surround the shore are renowned for big pythons. They are said to be seen sometimes, tired and exhausted, in the lake far from land, and they then do not hesitate to make themselves unwelcome passengers on a *tankwa*. We saw a monitor lizard and a small green snake, which are strong swimmers, and I caught one land lizard whose ancestors might have been imported accidentally by human agency.

Butterflies of four different species were seen crossing the water miles from land and often against the wind. White ants swarm on the island. It would be easy for them to come as flying queens, but there were no black ants. An Abyssinian official is said to have introduced black ants

in an attempt to exterminate the white ants, but the black ants died.

The trees I saw there seemed all to be of the kinds that have luscious fruits, so that the seeds will have been carried by birds. The big fig-tree, *warka*, grows to perfection and there are some magnificent specimens. I saw no acacia trees and accounted to myself for their absence by the fact that their hard seeds are not eaten by birds.

Dek is not considered as a sacred island, and women are allowed there. Cattle are brought over for ploughing, but it seems to be unhealthy and animals have to be constantly replaced. We saw a number of dead animals and skeletons lying about the fields.

H. Rassam, who landed on Dek in 1866, when virtually a prisoner of King Theodore, spent one night there but saw nothing of the interior. He says he embarked at Adina and landed at a creek on Dek called Sarmoutsh, and I tried to locate both places. Adina is probably west of the Small Abbai estuary—no one seemed to know exactly where it was—but the islanders knew Sarmoutsh and called it Sarmawucho. It is just to the west of Gadna and is a small *tankwa* landing-place.

There were altogether about a hundred houses inhabited by countrymen on Dek, including all of the villages. Some of the land is the property of the family of Ras Hailu, but the monastery of Daga seems to have the rights over the whole island. Dek is frequently harassed by pirates. They come in *tankwas* and fire rifles to frighten off the cultivators, who are unarmed. The pirates then help themselves to the cattle and take them away.

I had taken steps to get into communication with the priests on the island and had obtained permission to go and see the churches. The Memhir or Abbot, who seems to be in charge of the monastery on Daga as well as of the churches on Dek, came to the camp in the evening and

offered to accompany me to them all. He said that there were five churches on Dek, and there was once a sixth, now ruined and deserted. In addition there is a monastery on a small island called Narga, to the west, and the large and important monastery on Daga to the south-east. On December 10th we went on foot to see three churches; it was not possible to ride as there were no mules. The first church was Gadna Giyorgis, close to the camp, placed in a dense grove of trees. It was a poor, circular building with thatched roof, and all in such a bad state of repair that very little time was spent over it. We went on into the interior along paths among fields where harvesting was in progress, until, after half an hour, we passed the small village of Zibd, and a mile farther on stopped at Zibd Yasus Church, which was in much the same dilapidated condition as the last. The Memhir told a pitiful tale of poverty. There was no money to repair the buildings or provide thatch for the roofs, for which grass had to be brought from the mainland.

We returned by another path in order to see Arsima Sematat Church on the way back, and reached it after half an hour's walk. It is a better building than the other two; the walls are of rock and mud and are four feet thick. The sides of the inner building or Holy of Holies are decorated with some good wall-paintings that have been executed by a European artist. It appears that he was employed to work at Narga Silasi Monastery when it was being built. He slept and ate at Arsima, and these pictures were the result of his leisure hours. There was a painting of the Crucifixion and another of Saint George and the Dragon, which is similar in design to European pictures of this saint. He is mounted on a horse and is in the act of spearing the dragon. On the other side of the door were pictures of Arsima, who was apparently a woman and a martyr; in one she is being burnt, and another shows her having her

head cut off after being tortured in other ways. None of the people who came to the church with us could tell us more about her, and the only other occasion on which I came upon the name was during a journey round the lagoons at the lake outlet, where there is a small reef-girt island called Arsima.

All churches on the island have small villages close by, and there are a few other villages without churches, one being Moana, where the Memhir lived, through which we passed on our way back to camp, which was reached in half an hour from Arsima.

A break in the lake journey was now forced upon me. Zauday, the interpreter, who had not been well for the last day or two, was taken seriously ill the next morning, and I had to abandon the expedition and accompany him back to Dangila and leave him in the care of his family. He eventually rallied in strength sufficiently to undertake the three-weeks ride into Addis Ababa to obtain the attention of a doctor and treatment in a hospital, under which he recovered. Meanwhile I was left without an interpreter to assist in the translations from Giz into Amharic, should we find any manuscripts or books in the monasteries, and had to lead the mule caravan down to Gallabat to fetch another interpreter instead of returning to the lake immediately, as I wanted to do. It was not till three months afterwards, on March 9th, that I again landed on Dek and was able to visit the remaining churches and continue the lake journey.

Travel in Abyssinia is never dull, and there was no lack of incidental happenings during that three months. In going from the lake to Dangila with the invalid we had taken a straight line across the map in order to save him as many miles as possible, and this gave me the opportunity of surveying yet another unmapped corner and seeing and fixing the position of the junction of the Branti

and Kilti Rivers, several miles from the junction of the Kilti with the Small Abbai.

All went well on the Dangila-Gallabat road until we dropped below the escarpment, with the last six days in uninhabited forest in front of us, and the men heard rumours that parties of Shiguti's men were in the district. Shiguti—meaning pistol—was the name of a notorious highwayman, and we met a small party of Abyssinian traders who had been robbed by him. I gave orders to the men to keep together and not straggle behind, and we went for the next two days nervously scanning the bush on each side. The departure of startled antelope sent a wave of excitement through the caravan, and men anxiously clutched their rifles, tested the mechanism, and counted their cartridges over and over again. On the third day I was riding just behind the last loaded mule when it became evident that something was wrong, for all the mules had stopped. The caravan was a quarter of a mile long, and on account of the narrow winding track we could seldom see more than four or five of the last mules. A muleteer came running back to say that the highwaymen had stopped the first mules and were turning them into the forest, where they had begun to unload them. I was furious, and putting my mule to a gallop I rode to the front, accompanied by my three Sudan policemen. Here we found four men dressed in khaki and armed with rifles very busily undoing the packs of one of my mules while my muleteers looked on in bewilderment. I rode up close to the outlaws, who were too occupied to notice my arrival, and forgetting my Amharic shouted in English, "What the hell are you doing?" The effect was instantaneous: they let the mule go, and not knowing how many armed men I might have just behind, stood speechless. Their leader, however, soon recovered and made an amazing apology. He said that they were Shiguti's men and

asked my forgiveness for the error they had made. They had mistaken my caravan for that of a merchant. Shiguti had given them orders that they were only to rob Abyssinian caravans and were not to interfere with those of Europeans. I was very relieved at this turn of events, for it is probable that the four men had twenty or thirty more within call had there been any firing. I continued to frown at them, while I ordered my men to tighten the girth of the unloaded mule and move off with the caravan. I stayed glaring at the gang until the last mule had passed and had disappeared, and then swept by them with all the dignity I could muster and followed the caravan. The chief outlaw, who had obviously served in the Sudan at some time, called his three men to attention and gave me an irreproachable British salute. This respect for a foreigner and his property is the result of the good impression left behind by Lord Napier's force at Magdala over sixty years ago. It has not been forgotten in Northern Abyssinia that the British Army arrived there and occupied the capital merely because, as the local version goes, the British Consul had been ignominiously treated.

Though this incident had left me with no personal grievance against Shiguti or his men, he had been a terror to the neighbourhood for several years and was paralysing trade on the Sudan road, a trade that it was one of my duties to protect, so I had to report his activities and his whereabouts on my arrival in Gallabat; but I felt just a little mean when framing the telegram. As a result of my report the Abyssinian Government captured Shiguti. He was taken to Debra Tabor, and an Abyssinian aeroplane was sent to convey him to Addis Ababa. The pilot insisted that his passenger should be bound hand and foot before he would start, and also borrowed a pistol. Shiguti was tried in Addis Ababa for highway robbery and on several charges of murder. When asked how many men he had

killed he replied that he could remember nine and had forgotten the rest. He was condemned to death and was hanged on Intoto,¹ having first tied the rope round his own neck and invited the executioners to pull away.

We had no more trouble until we arrived near the frontier, where the Abyssinian Customs official refused to let me pass into the Sudan, arguing that my permit, although signed by one of the Abyssinian provincial governors, was not accompanied by a permit signed by his immediate superior. I showed him also an Addis Ababa permit, signed by the Abyssinian Government, but he merely informed me that I must camp on the Abyssinian side of the boundary. It was very annoying, as I wanted to be back on the lake, and the dry season was passing, so I took special pains to explain the position very clearly and warned the man that he was in the wrong and that if he delayed me I would see the matter through. As he refused to listen to reason, I camped in Abyssinia. My new interpreter, Gabra Hiwat, was able to come and join me there and I was free to walk over from my camp to the Sudan Telegraph Office and communicate with my Government. It wasted three weeks, but at the end of that time I received a visit from an official from the highlands, with a large party of armed retainers, who had been sent by direct orders from no less a personage than the Emperor himself to ride night and day to Gallabat, ask me to point out the man who was detaining me, place him in irons and remove him. Having seen this ceremony through to my entire satisfaction, I lost no time in crossing into the Sudan in order to point a moral, and setting out to return to Dangila by a new route. This took me through unmapped country which I had long wanted the opportunity to survey. We crossed the upper waters of a Sudan river, the Rahad, here called the Shinfa, as well as the upper

¹ The hill overlooking the capital.

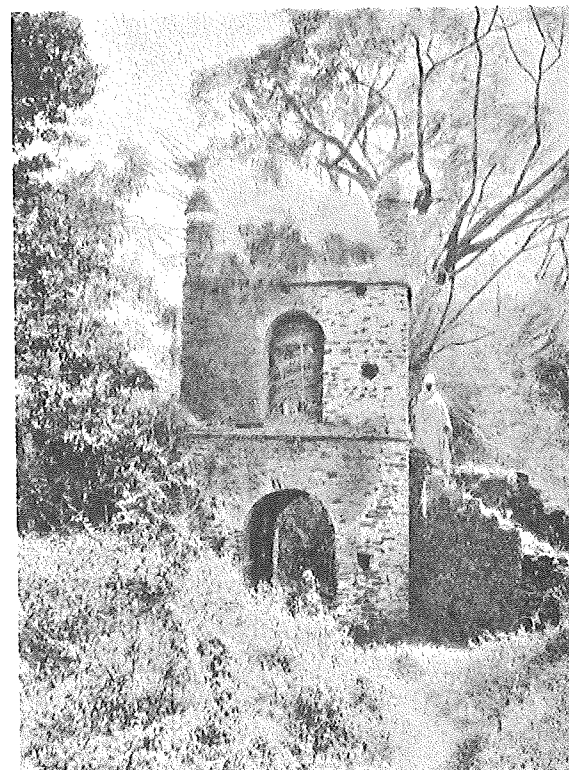
reaches of the Dinder, known in Abyssinia as the Aima, and the Balas, all considerable tributaries of the Blue Nile, and it was found necessary to make alterations to the tentative positions that had been given them on maps. In the case of the Balas I found it was 30 miles from where it had been placed on the map. On this unknown track I had hoped to find a way up the escarpment with easy gradients, but we had the usual precipitous climb up to the plateau. By February 22nd we were back in Dangila, and, after a few days' preparation and rearrangement of equipment, we left once more for Lake Tana.

We found our three *tankwas* ready and landed at Gadna on Dek on March 9th, 1933. We went off on foot as soon as possible to the two Dek churches we had not yet seen. It took fifty minutes to reach Kota Mariam village, and another fifteen minutes to Kota Mariam Church, situated to the north-east of Dek, about half a mile from the shore. The women have to carry water from the edge of the lake, as they do in all the other villages, for there are no wells. The rectangular walls of the Holy of Holies are built of lime mortar and rock, whereas the circular outside walls are of mud and rock. Local tradition told of a serious quarrel that arose over the building of the church. The patron who paid the expenses of the building was Ato Waldo, a commoner. He sent for lime from a far country to make mortar, and the walls of the inner structure were already erected when the neighbours raised objections, saying that only the Emperor and those who were of kingly families could use lime in their churches, and such was the uproar that the rest of the church had to be finished with mud, rock, and straw. By the church wall stands a coffin of a woman, Waizero Herut, who received this honour because she had been to the expense of having the church repaired. The coffin is a whole tree-trunk hollowed and shaped by adze, with a small knob left at the end to

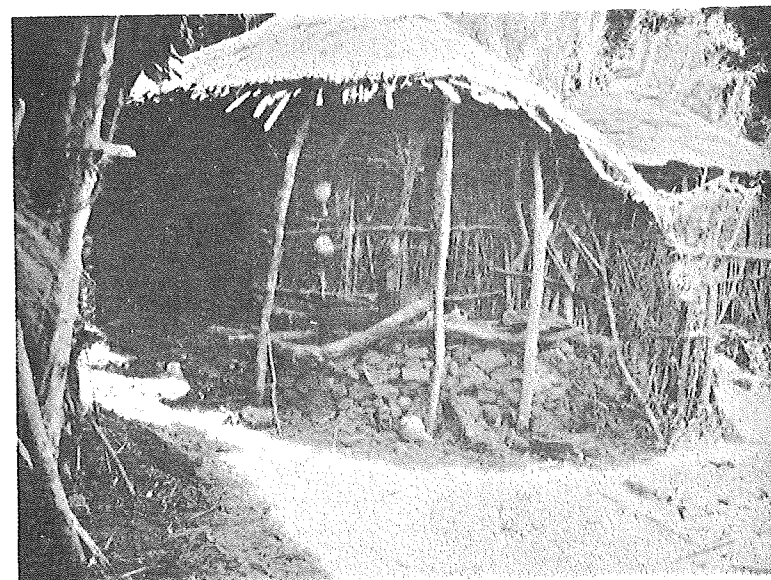
serve as a handle. We were shown also a small brass bell, and another bell made of a long bar of stone weighing two hundredweights, suspended in a wooden frame and sounded by hitting it with a round stone. Such wall-paintings as the church possesses are of a crude order, done on calico and stuck on the wall.

By going almost due south for an hour and a quarter we were able to visit Jaga Yohannes on the way back; it was about three-quarters of a mile from the south shore of Dek and had been built on a rock mound that had been artificially raised. The church was little better than a ruin, and half an hour's walk in a westerly direction took us back to camp.

It would have been possible to go to Narga Island by walking to the west shore of Dek and crossing a narrow stretch of water that divides the two islands, but this entails arranging for a *tankwa* to meet you and ferry you over, so I took two of my own *tankwas* and travelled all the way by water, an hour and a half's journey. The men took us to the west side of Narga, which looks completely covered with forest, only glimpses of the thatched roof of the church of Silasi, or The Trinity, appearing through the trees. We landed at the picturesque ruin of a water-gate close to the lake-edge, built of rock and lime mortar, which was in a wonderful state of preservation considering that it had stood there for two hundred years. The walls were three feet thick, and the building had once been two stories high with a domed roof. The upper story had four arched windows, and the lower room was eight feet square with two arched entrances. We were met here by two priests, who led us by an overgrown path among trees towards the centre of the island. On the way they pointed out a primitive settling-tank or filter in the form of a small pond filled from the lake and separated from it by an artificial wall of rock. It seems that in the rainy season



BELL TOWER, NARGA SILASI ISLAND, LAKE TANA



MONKS' CELLS AT SAINT STEPHEN'S MONASTERY, DAGA ISLAND,
LAKE TANA (p. 144)

the current of silt-laden water from the Small Abbai crosses the lake and strikes the shores of Narga, so that their supply of water is all chocolate-coloured, but they said that it was clearer in their pool. On the eastern side of the island there is another water-gate, approached from the direction of Dek by a causeway of arranged lava-blocks connecting it with another small island, and this is the main entrance. From here, travelling along a path in dense trees, we came to an inner gate admitting us to the precincts of the church, a building similar to the others but larger, with stone steps leading up to the top story, which is a domed bell-tower containing a metal bell weighing two hundredweights. There was no inscription on it.

Even if no more of interest were to be found on the lake, I felt that to see these old grey towers, forgotten on this lonely island, was worth all the trouble taken to get there. At first sight the church suggests the work of the Portuguese Jesuit priests, but that is impossible, as they had all been expelled from the country when it was built. The architect is unknown, but he may have been one of the descendants of the Portuguese artisans who accompanied the priests, who received his inspiration from the Gondar palaces, which in style his work resembles. A masonry wall surrounds the precincts. The church itself is round and is built of rock and mortar; a graceful circle of rock-and-mortar pillars with arches surrounds it and supports the thatched roof. All the woodwork is massive, and the huge doors are made of one plank cut out of a *warka* fig-tree. Some good paintings of saints adorn the walls, painted on linen and stuck on.

I asked to see some of the books, and among those that were worth special notice was an illustrated copy on parchment of *The Miracles of Christ*. Some of the miracles were the familiar ones of the New Testament, but many others had been added, in particular a number associated

with the childhood of Jesus. In one He was represented as walking up a sunbeam off which His playfellows were falling. In another He and the other children were making birds out of mud; His flew away, but theirs remained mud. In another He was shown at school, where a child had fallen from a window and had apparently been killed. The teacher stood over the boy Christ with a rod and was accusing Him of having pushed the child, when it arose and spoke, exonerating Christ.¹ The Jews in the pictures were distinguished by the peculiar head-dress worn by the Jews in the Middle East. The illustrations were very beautiful; the writing was in Giz.

In another parchment volume with a leather binding the pages were beautifully inscribed in Giz, and there was one illustration of the Virgin and Child. I noticed that the Virgin was holding the Child in her left arm as in European pictures. I was hoping to find dates in these books, but we saw none. There was one work which raised our hopes, as it began "This book was begun in the eighteenth year of the reign of Iyasu", but that was all. The priest supplied the information that Iyasu was the son of Yetege Mentewab, who was also known as Walatta Giyorgis. She was the Queen of Bakaffa and was the founder of Narga Silasi church, and her mother was Waizero Enkoi. Several books gave the day and hour of publication, but we were not successful in finding one that mentioned the year.

The island is uninhabited, but all round it we came on ruins that once were the abode of monks. We rowed home to camp by the way we had come, leaving unvisited the

¹ It seems that these miracles were obtained from one of the Apocryphal books of the Infancy. There is at the British Museum a volume in the Ethiopic script, which was taken at Magdala, entitled *Acts of Saint Thomas*, but I have not been able to find anyone in England who can read classical Ethiopic (Giz). The Keeper of the Department of Oriental Printed Books and MSS., British Museum, has kindly referred me to the *Apocryphal New Testament*, by Dr. M. R. James (Oxford, 1924), for further research on the subject.

ruins of yet another church, Arabaitu Insisa, on Dek, as the priests had described it as completely demolished and deserted.

This left only the famous monastery of Stephanos (St. Stephen) on Daga, and a whole day was set apart for going there and returning, giving ample time to spend on the island itself. The forest-clad cone, rising from the water nearly a mile from the south-east corner of Dek, is one of the most prominent features of the lake area, and the monastery is hidden in trees on the summit about 300 feet above the water. Stecker, who visited Dek in 1881, mentions in his narrative that he was not allowed to go to Daga, as it was holy ground, so that I was particularly pleased when the priests made no objection to my proposal to row over and see the books in the library. The voyage out took two hours. We followed the south coast of Dek at first and then struck out across the open water. Very little poling was possible although the water did not seem to be very deep, for there were innumerable reefs some distance from the shore of Dek. After passing close to the north-west corner of Daga we punted along the north shore. The northern slopes of the island are steep cliffs of 250 feet that towered above us. The rocks along the shore are small and rounded and seem like pumice in contrast to the big scoriaceous cubes on Dek. The island is about three-quarters of a mile in diameter. The highest land is on the north end, and the whole is so densely overgrown with vegetation and big trees that there seemed to be no entrance; but we were landed at the north-east corner, where a well-used winding path leads to the interior. The track is completely concealed among bushes, and the deep shade cast by the branches of the great trees overhead gives it an air of mystery and sanctity.

The first object of interest was pointed out as we began to climb steeply up the hill. There was an oblong ring of

stones on the ground, and a priest told us that here the Emperor Zara Yakob, whose remains lie in the monastery above, was found sitting seven years after he had died. During this period he had wandered round the country from monastery to monastery, and in response to his servant's constant suggestion that the time had arrived when he ought to consent to be buried, he only replied, "Da". Having found Daga, a soil in which his spirit could be at rest, he was buried. The Chronicles give a more materialistic version of the same story. There is a firm belief in the miraculous wanderings of holy and famous Ethiopians after death. I came upon a similar case of this, for it was said that Ras Makonnen, the father of the present Emperor Haile Silasi, who died in 1906, was still residing on Daga disguised as a monk, and had only left shortly before the time of my visit.

We saw little cultivation on the island, but there were a few patches of tall millet and some of coffee. We came suddenly in sight of houses near the top of the hill, all the usual round buildings with thatched roofs, the residences of the monks, and then the *ikrbet* or storehouse was passed, and a moment after we stood on the summit beside the church. This is one of the few rectangular buildings seen in the country, with three divisions as in English churches, corresponding to the altar, choir, and nave, but in this case the first or eastern division, which would contain the altar in an English church, was the abode of the Ark, the *Kidist Kidisan* or Holy of Holies, and was screened off from the rest of the church as it used to be in English churches. The building is modern, as the original church had been struck by lightning and burnt down in the reign of John IV (1868-1889). Grass fires and lightning are responsible for the destruction of many Abyssinian churches every year.

Up to now we had seen no inhabitants of the island

itself, but at the church walls we were met by two monks, who, when introduced by the Memhir of Dek, who came with us, said in colourless phrases, with expressionless voices, that if I wished to visit the House of God I was welcome. My credentials had been seen previously and they had had ample opportunity of knowing that I had the Emperor's permission to visit them, so they asked no questions about my passes. They said that there was no Superior, Abbot, or head monk in the monastery; none gives orders to another.

The monk who received me was a reticent man of seventy. He took us to the third or western division, where during services the crowd stands. A wooden door twelve feet high opened into the middle division, which we entered. It was a bare room with only an iron lectern, on which was an old parchment book with a wooden cover. In a corner were stored some church drums and two crudely decorated processional banners painted in bright colours; one was of the Virgin Mary with the Child on her right knee, the other a startling picture of three staring figures representing the Trinity. There were also some portraits of recent local divines renowned for their piety. The floor was covered with rush matting and cut grass. The old monk had been in the Holy of Holies preparing incense while we waited. The door was open, but the Ark was screened by a high curtain reaching from the ceiling to the ground. He came in swinging a brass censer of smoking incense, mumbling prayers as he walked among us. He went round the nave, which was empty, and then outside the church and back again to us. This ceremony lasted twenty minutes and looked like being continued indefinitely, but when I suggested seeing the books in the library, a move was made to the *ikrbet*.

The Gebaz now came forward; it appeared that he had come over by arrangement from Dek, as without his

presence we could not have been shown anything. His is an office of which I had never previously heard. He is a layman and inherits the title from his father, gets pay from Church funds, and is given land. He alone can give permission for the *ikrbet* door to be opened and must be present all the time the door is open; the monks cannot unlock the door unless he is there. But the Gebaz must not touch the church's possessions and he has nothing to do with the ordering of services, which is the office of the monks. The *ikrbet* was a masonry building of primitive design, with walls several feet thick, and without light except through the doorway. There was a stout timber door with an iron lock which the Gebaz opened with an iron key. Books were brought out to the light, and the monks crowded round. We sat on a stone shelf close to the entrance and must have made a strange group. Everyone was intensely interested in the volumes, as there were some that the younger monks had not seen before. It must have been many years since they had been taken from the library. One of the monks read passages in Giz and translated it into Amharic, while Gabra Hiwat, my interpreter, had to give a literal translation of this into tolerable English, which I wrote down. It took a long time and we concentrated only on passages that seemed to lead to a date being mentioned.

The first book we examined was written on parchment. The author gave his name as Giyorgis Waldamit, but a diligent search revealed no date. As there was a list of Abyssinian Kings, I made a copy of it in the hope that it would prove interesting when compared with published lists. It began with David and gave the period of the reign of the Yahuda or tribes of Judah as 527 years 4 months 3 hours, and the rule of the Kings of Sambria 237 years. The next period was filled by rulers who were not from the royal family, the Kings who are usually referred to as the Zagwe, including Lalibala. This volume gave the total

of their reigns as 33 years. I pointed out to the priest that this was very short, and he replied that in other books the time given was 250 years, but that envious people did not want to say they reigned so long. I was rather mystified, but think it is best to record exactly what I was told. According to the list the period from the birth of Christ up to the conversion of Ethiopia was one of 247 years.

From then to 'the discussion of the 300 with the evil man Arius in Constantina' was 53 years,¹ and so on up to Yekuno Amlak and to Naod, at which point I had spent as much time as I could give to one book and asked for another. This gave another King list, and I copied a few paragraphs from Sayfa Arad up to Yakob, but found no date of publication in either volume.

From this short account of the contents of the books it seems evident that a traveller of some scholarship able to read Giz, or accompanied by a really good Giz-speaking interpreter and possessing a knowledge of Abyssinian history and Church history, would find much of interest in this library. He would have to arrange to have ample time at his disposal in order to peruse thoroughly all the volumes not only on this island but in other libraries round the lake, and he would be wise if he did not come with any particular programme or time-table for his movements. I found it quite impossible to spend the time I should have wished on examining everything more thoroughly, and I realised at once that this kind of research belongs to the expert, and that my part could only be to

¹ The doctrine of Arius the Alexandrian presbyter was promulgated about A.D. 318. It was condemned in 325 at the Council of Nicaea, a town in Asia Minor. Arius died in 336. I am not sure whether Arius attended the Council in person, but it seems that the writer of the book on Narga thinks that he did. Constantine the Great, who summoned the Council of Nicaea, died in 337. The findings of the Council were confirmed by the Council of Constantinople in 381, but I think that the writer meant to refer to Nicaea.

place on record a superficial description of what there was and where the books and manuscripts could be found.

The Mazgab or Register, which promised to be of exceptional interest, could not be taken out of the *ikrbet* or even shown to me unless all the elders and people from the surrounding country had been previously warned and summoned and were present as witnesses. This procedure would have taken several days. I was disappointed, but could appreciate this very wise precautionary measure for guarding the treasures of the monastery against loss through dishonest monks or unscrupulous travellers.

I then asked to see the tombs of the Kings of which I had heard, and after a suitable present of dollars had been given, part for the upkeep of the church and part for the monks themselves, I was taken into the interior of the *ikrbet*. I specified what proportion of the dollars I wished to give as a donation towards church expenses, as it is customary for the priest to bless this publicly, holding it in his open hand meanwhile, so that all can see the amount. It is spent on the purchase of incense and on wax tapers to light the early morning services. In Daga one of the monks took the money and performed the ceremony as silence fell on the assembly. Speaking in Giz he said, "Let us say grace twelve times", then in a whisper he recited the Lord's Prayer, while with the thumb of one hand he touched each joint of his four fingers on the same hand, making twelve in all. Some of the people standing round murmured the prayer and touched the joints of their fingers at the same time.

We had to wait in the gloom until the censer was taken round, our only light being a dim taper which seemed to intensify the darkness. As our eyes became accustomed to the conditions we could see that the room was filled with the vestments of the priests and monks, brightly coloured robes that are worn on Church festivals, and at the far end

of the *ikrbet* some shelves became visible. We climbed up a well-polished tree-branch that serves as a ladder and saw on one shelf a big wooden coffin, the lid of which opened on the mummified body of the Emperor Fasiladas (1632-1667). His head was covered by a cloth, which when removed disclosed the face of a fine-looking man with refined features, thin nose and lips. He must have been over six feet in height. The embalming process, which I have not seen or heard of elsewhere in Ethiopia, had been most successful as far as his face went, which was not at all gruesome to look upon. Beside Fasiladas in the same coffin lie the bones of his small son Isur, whose short reign and tragic death do not seem to be mentioned in any of the Chronicles, nor is his name in the King lists. At his tomb I was told that he was the seven-year-old son of Fasiladas and was King for only six hours. On the death of his father the child was taken into a tent to receive the acclamations of the people and congratulations on his accession from the nobles. The day was hot, the tent overcrowded, and when the celebrations were at their height they found that the young King was dead.

On another shelf in a similar wooden coffin are the skulls of Dawit (David) I (1382-1411), Yekuno Amlak (1268-1283), and Za Dengel (1603-1604);¹ the bones of these three were all in one coffin. The remains of Bakaffa (1721-1730) were said to be in another room of the same building, but the monks told me that they had been unable to find the entry of his burial in the church register. A box on a side shelf contained the remains of Zara Yakob or Constantinos (1434-1468). We were allowed to see the box, but so holy a man was he and such is the reverence in which his name is held that only the monks are allowed to look upon him. The sword and sheath of Zara Yakob were

¹ The monk said it was Sarsa Dengel (1563-1597), but I was to see the burial-place of Sarsa Dengel later, on Rima Island. See also Tellez, p. 172.

shown to us. The weapon is of the straight Sudan type as used by the troops of the Khalifa. There is an inscription in Arabic inlaid in silver on the handle which the Arabic-reading part of the community tried to read, but it was indistinct and possibly cut by an illiterate scribe. I copied it, but even Arabic scholars have been unable to decipher the copy. Another inscription, this time in Giz, was crudely cut on the blade, but none of the Giz scholars present could read it, as the sword was not well kept and was rusty.

There are said to be ten monks on Daga, of whom I saw seven. I went round to a secluded corner of the hamlet to see their cells and to call by invitation on two of them who had not been off the island of Daga for forty or fifty years, they said they were not sure which. They had refused to come and see me but had politely sent a message to say that they had no objection to receiving me in their cell. I was delighted to visit them, as they were the extreme ascetics, a type I had not met before. They received me in a hut so tiny that there was just room for the three of us. It was approached by a small flight of stone steps. The walls were of woven rush, on which were hung many little cups used as receptacles for small objects. Everything, both inside and outside the cell, was spotlessly clean. They were standing to welcome me, and they greeted me with a charming courtesy and apologised for not having come out of their compound to meet me, explaining that their rigid way of life forbids them from mixing in ordinary public ceremonies. One monk was eighty and the other about seventy. They made me sit on a hammock made of reeds, on the floor, but they continued to stand while we talked. I should have liked to ask many questions about their past, and I longed to know why they had retired from the world, but felt that such inquisitiveness from a stranger would have been an impertinence, so our talk was confined to generalities.

One monk was dressed in brown and the other in white calico shirt and trousers of the usual Abyssinian cut; both wore the white skull-cap of monkhood. The cell was too enclosed for me to get a photograph of it, and the monks said they would prefer not to come out to be photographed. They described their day as spent in solitude reading the holy books, and their only relaxation was picking, drying, and packing *gesho*, the leaves of a bush used for flavouring *tej*, the Abyssinian honey-wine, in the same way that hops are used for flavouring European beers. The only living thing that was sharing their seclusion was a small and lively kitten that was bounding about and catching imaginary mice round the cell. As I went away I took a picture of their little kitchen hut adjoining the cell.

We returned to Dek by the way we had come and reached Gadna camp at 4.30 P.M., crossing to Gomti on the mainland the following morning, and from there continued our voyage round the lake shore.

CHAPTER XII

IMFRAZ AND KEBRAN

March 16-25, 1933

OUR course for the next few days passed along an almost unknown line of the shore. The mule caravan road goes direct to Zegi through forest, so the shore-line had not been seen or mapped with any degree of accuracy, and I did a careful series of little sketches of the innumerable small bays and inlets and made notes on the water depths. It was interesting to see the lake side of Zegi Hill, a place which I knew well from the land side. The whole hillside is covered with coffee plantations shaded by the branches of tall trees. As we floated quietly along we could see the coffee gardens that came down to the water's edge, and the coast was a line of big piled cubes of lava with the white fringe of dry algae showing the mark of the last wet season's highest point. Among the cubes are artificial private harbours, made by removing sufficient rocks to allow a *tankwa* to enter. They are pulled in to be loaded with coffee and lie there free from the action of the waves. There are seven churches hidden in the trees on Zegi Hill, but they can more easily be visited from the land, and equipped as I was with the necessary water transport I felt it was better to give all the time available to the more inaccessible churches on the islands. I was particularly anxious to see the estuary of the Imfraz, a river which I knew some miles upstream, where a caravan road crosses it at a ford made difficult for animals by the gaps between the big lava-cubes which form its bed, into which the mules step unexpectedly. Whenever I had seen

the Imfraz its fast-running water was crystal-clear, in contrast to other streams which are thickened by the smallest shower of rain. Throughout the whole of its course the Imfraz flows through a bed composed of loose scoriaceous lava-cubes, a most unexpected material to hold water. Its source, which I discovered the following year, was also surprising, for it rises in a lake called Kurt Bahr, which lies in a basin of the same loose material. The lake is half a mile in diameter and was shown on maps, but it was not known as the source of the Imfraz. A native who gave me this information found me incredulous, but he took me to the northern shore and threw in water-weed which made it possible to see the current flowing through crevices between piles of rock. The man said the river was subterranean for a mile or so, then rose as a spring and flowed to Lake Tana. A few smaller springs also rising out of blocks of lava join it as tributaries.

We came to the estuary of the Imfraz on March 18th, after a somewhat rough crossing of the bay from Zegi. There had been a delay at the start to allow the wind to go down, and even then the *tankwas* were pitching considerably, rocked by white-crested waves two feet high. I shot on the way a Lesser Black-backed Gull, a rare wanderer to Abyssinia from distant seas. The lake shore is completely screened by a thick fringe of papyrus through which a narrow lane led inland, which the Waitos said was the Imfraz channel. We passed over a bar three feet deep and landed, pitching the tents on a slight rise at some distance from the river-bank, as the surrounding country seemed to be favourable for mosquitoes.

The deep water in Lake Tana outside the Imfraz estuary had been mentioned by the Waitos as one of the haunts of the *sorx*, a big fish that is said to be found in Lake Tana. For years I had heard of this monster, a creature reputed to be as big as a man, but I had known

the lake and the story for so long without having been able to set eyes on the fish or even its bones, that I had become sceptical. Nevertheless I had brought with me some tackle for landing big fish and had offered a substantial reward to any of my men or the Waitos who could bring me a fish, big or small, that all natives of the lake shore would agree was a *sorz*. The Nile Perch (*Lates niloticus*) grows to a great size. It is not unusual to hear of them weighing 100 pounds and over lower down the Blue Nile at Sennar and Khartoum, and the heaviest that I have seen recorded is one of 258 pounds caught in Lake Albert. It has never yet been taken in Lake Tana, and I thought this fish might possibly be what the natives called a *sorz* and hoped I should be able to be the first to record it.

Turuna Habasha, Bakala, another muleteer, and I accordingly took one of the *tankwas* down to the papyrus-beds by the river mouth and fished from it. The men used bamboo poles and bits of string, and I had supplied them with large hooks. At dusk mosquitoes drove me away, but the men fished on, intending to continue the quest of the *sorz* by the light of the moon. Within half an hour I was surprised to see them hurrying breathless into camp. It appeared that I had only been gone twenty minutes when they heard a strange sound approaching along the channel of the Imfraz, and in another moment the head and part of the body of a large python appeared out of the water close to the *tankwa*. The fishermen sat petrified with fright. The huge snake, after making a blowing noise, proceeded on its way, and as soon as it had passed out of sight there was a general stampede for the camp.

A church, Liblibo Mariam (Mary), stands close to the lake near the Imfraz estuary, but the building is of little interest as it has been destroyed by fire and rebuilt three times. As it was described to me by the local official as a *gadam*, I tried to obtain from him a clear definition of the



WAITO FISHERMAN WITH FISH TRAPS, ZEGI BAY, LAKE TANA



CROSSING THE IMFRAZ RIVER

three names that I had heard for a church: *gadam*, usually translated in English as monastery, and *debra* and *bet Cristian*, both translated as church. Liblibo was a typical circular Abyssinian church. A priest was in charge and there were no monks. The official, who might be compared to the Lord of the Manor, said that the building was founded as a church in the time of the Emperor Fasiladas and was changed to a *gadam* in the reign of Takla Giyorgis, also known as Fasami Mengist, who ruled in what is called the Walloch period.¹ This official introduced a Takla Giyorgis as ruler between Theodore and John IV, but I have not found his name thus placed in any of the King lists. The word *gadam* as applied to Liblibo Mariam obviously could not be translated as monastery, although Takla Giyorgis had raised its status from that of church. When pressed to explain the difference, the official told me that a *gadam* was a church whose superior is a Memhir and is independent of local Government officials, and a *debra* or *bet Cristian* is under a lay Government official and is independent of any Memhir or monastery. With this definition I had to be content for the time being.

Nagadras Ayana, the head Waito, now warned me that I should require three new *tankwas* if we were to circumnavigate the lake completely, and set his men to begin the work of weaving the bark-fibre rope and collecting bundles of papyrus, of which there was no lack on these shores.

We left Imfraz on March 20th. Three other churches were near the lake shore, Lumami Mariam, Salchen Mikael, and Shimbit Mikael, and I landed to visit them as we passed, for I did not want to miss the chance of seeing any old books they might contain, but there also I found nothing of interest. An old man in the village at Salchen said that the church there had been rebuilt thirty years before, as baboons had visited it and had made a ruin

¹ See King list in Appendix.

of the edifice during the absence of the priest. This seems as quaint an explanation for the restoration of a church as one could wish for. Big parties of baboons, up to a hundred strong, roam through the country and do damage to crops if they are left unguarded. In this case it is probable that some berries had fallen from the trees on to the thatch and into the crevices of the walls of the church, and a vigorous search for them by the apes had resulted in its demolition. It seems unlikely that the animals would do so much hard work out of pure mischief.

I was also shown a big fig-tree under which Colonel Peluso, a retired officer of the Italian Army, had been murdered. I had met him barely a year before in Zegi, where he had tea with me in my tent. He said he was trying his luck as a coffee-merchant on the lake and hoped to establish a trade in coffee between Zegi and Eritrea. The tragic circumstances of his death in this lonely lake-shore camp were at that period shrouded in mystery. He had been shot at close quarters while asleep on his camp-bed in his tent. Only his servants were with him, and suspicion had fallen on one of them, who was, I was given to understand, under arrest.

We arrived at Bahrdar Giyorgis on the same day and spent several days there while the Waitos went back to Zegi to finish building new *tankwas*, leaving one of their number and the best of the three old *tankwas* to take me for short journeys on the lake. Here the shore-line is all loose cubes of scoriaceous lava-blocks piled on the top of each other, and I wondered to what depth this formation went. Some of the blocks weigh several tons, and it is difficult to investigate below them, but near the church a small harbour for one *tankwa* had been constructed by the removal of lava-blocks, and the floor of the harbour was shingle and small stones. If that is the case, the depth of the lava is eight feet. This seems to give the depth of the

lava at this spot, but the presence of the gravel might have been a case of filling, and the thickness of the lava, which is part of the lava-flow which dammed the old valley of the Blue Nile and formed Lake Tana, might be much greater.

The Church of St. George at Bahrdar stands near the lake shore, and compared with others is a well-constructed building in a good state of preservation, but I could not find that it was of interest from an historical point of view, nor could I hear that there were any books or manuscripts. It has good wall-paintings on linen, and a metal bell presented by Mr G. W. Grabham of the Grabham and Black Mission.

One morning I went a mile or two eastward to see what was known to the various survey parties who had been working on the lake outlet at the Fig-Tree Gauge, on which for many years the lake-levels had been recorded by a local reader who had received a monthly wage from me. The gauge had been made and used by the Grabham and Black Mission in 1920-1921. The marks are three iron bolts driven into holes drilled in a big lava-cube, and the distance of the water-level above or below the bolts was written down daily and sent to me by the reader. The statistics prepared from these particulars and the known behaviour of the lake over a number of years will provide essential information when the final plans for the regulation of the water are being decided.

The next day an excursion was made to Kebran Island. We rowed over in the *tankwa* in two and a half hours. The course was strewn with rocks and reefs, some just above water and some just under the surface. It was a journey that would call for exceptional care on the part of the pilot of a sailing boat or motor vessel to avoid being holed. When a *tankwa* strikes a rock the pointed bow and the streamlining in front enable it to avoid damage, for the raft simply glides over the top until it is brought to a standstill. We passed between the mainland and a big reef island

named Aba Garima, half a mile long by half a mile broad. The surface is level and is submerged during the months of high lake, but is exposed during the dry season and grows a nutritive water-grass that is seen on similar country all round the lake. It is particularly valuable as cattle food, and the finest cattle in the country and beasts in the best condition are found on these grazing-grounds. My mules improved visibly in a few weeks when living on them.

The next island passed is Entons, about three-quarters of a mile from Kebran. It is an attractive afforested cone, once the nunnery or convent attached to Kebran, but now completely deserted. It also had a church named Iyasus (Jesus), but it is in ruins so we did not land. The *tankwa* landing-place at Kebran is on the south side, and the path from it rose steeply among high trees. The island is formed of piled volcanic rocks and has a narrow shore of shingle almost ground to sand by the action of the waves. On the top of the cone, about 100 feet above the lake, we came to the church, dedicated to Saint Gabriel. The Memhir, a monk eighty-seven years old and a celibate, greeted me civilly, rising painfully from his chair and explaining that he was old, tired, and worn-out. I begged him to be seated again. Except for an occasional visit from travelling monks, one of whom was there at the time of my arrival, he lived alone on the island with his servants, two slave boys whom he had protected and educated, and his young nephew, who was staying with him. These three seemed to look after him and the church, though it is probable that younger monks came over from the mainland and assisted with the services.

The old man said that he was born on Entons, had been on Kebran forty-five years and had never left the island. If his body was feeble his mind was clear. He told me that Kebran was founded six hundred years ago in the reign of Amda Seyon (1314-1344), and Abuna Za Yohannes

built the church. It had been repaired by David, and Adyam Sagad (probably Iyasu I, 1682-1706) rebuilt it with the help of European workmen. He sent the boys to bring a book called *The History of Gabriel*. It was written in Giz on parchment and was bound in an ornamental leather cover. It recorded that two foreign masons were employed, in addition to Abyssinian masons, in the building of the church, and mentioned the provinces from which timber, stone, and lime were supplied. The red rock of which the pillars are built came from Dunkaz; it is shaped in square blocks. Lime came from Densa. Limestone outcrops are rare on the plateau, and only the royal family and nobility can afford to pay for transporting it, so lime is seldom used for building, its place being taken by mud mixed with chaff, which with rock builds substantial walls which last well if roofed and protected from rain. I only heard of limestone quarrying in the Blue Nile Valley. The Memhir said that Kebran Gabriel had been struck by lightning in the reign of Iyoas. He also told me of a picture of St. Gabriel kept in the Holy of Holies, which was painted with the tears of a monk who was a very holy man. If the picture is put in water it remains unaffected, as water will not touch it.

In the Kidist or second division of the church we were shown the open coffins, with bones exposed, of several previous Memhirs. The coffins were tree-trunks hollowed out with an adze. The coffin of the Emperor Takla Hai-manot I, who is called "The Accursed" because he caused his father Iyasu I to be murdered and usurped the throne, used to lie in the Kidist, but had to be removed to the Kidist Kidisan, where only the priests can see them. It was found necessary to move them, because superstitious people used to take bits of bone and pieces of cloth from the King's coffin and use them as charms.

On the south side of the church, in the floor of the Kidist, is the tomb of Abuna Za Yohannes, covered by

a stone slab. A memorial in stone is let into the wall beside it, with a simple design of the top of a Bishop's staff. The south window of the Kidist Kidisan is openwork of wrought iron in squares of a similar design to that on the stone, and both are doubtless the work of Europeans.

There are at Kebran twelve pillars of dark-red worked stone, ornamented at the top and with arches between. The pillars are at least 25 feet high and are built in a circle surrounding the Kidist Kidisan; they are narrow, square, and graceful and make an impressive bit of architecture. The Memhir said that the number twelve was chosen to represent the Twelve Apostles. Some of the arches are giving way and look very dangerous, and the building is in need of immediate repair. In the churchyard is a separate thatched belfry, the supports being rough branches of trees. Here we saw three kinds of bell, one a rough-cast metal bell with a bold inscription in Giz embossed round it, and weighing about a hundredweight. A free translation of the inscription is:

"This bell of the King of Kings, Alam Sagad (the world bows to him), by the mercy of God, named Fasiladas, gave it to the Ark of Gabriel of Kebran."

There were also two stone bells made of pairs of narrow slabs of rock, the longest 8 feet long by 1 foot wide, slung by creeper-stems to wooden frames. A round pebble lies on the top of the stone and is used as a striker, and when sounded the bell gives out two notes as each stone is struck in turn.

A third kind of bell is composed of three wooden clappers, merely shaped timber boards. The middle board is the largest and is tongue-shaped and about 4 feet high by 2 feet wide. Two slightly smaller clappers are loosely bound by ropes of creeper-stems to the front and back of the middle board through two holes, one on each side.

The middle board has a stout handle, and a man can make a clapping noise by shaking the whole concern.

Many paintings on linen adorn the walls in the church, and they are of good colour and tone. One is of St. George and the Dragon, and there is also one of Iyasu I lying in Heaven with Christ standing over him, and his riflemen all round him. There are said to be large stacks of books in the library at Kebran, but there was so much to see that I had no time to examine them. They were taken there for safety by other churches on the mainland during the various Muhammadan invasions and have never been returned.

We re-embarked and poled the *tankwa* round the island westward to see the Church of Mado Mariam, built on a little promontory at the north-west corner. We found a small, poor building in which services are only held on occasions such as the Feast of Mariam, when a monk is brought over from Zegi, as a priest is not allowed to officiate unless he happens to be a monk as well.

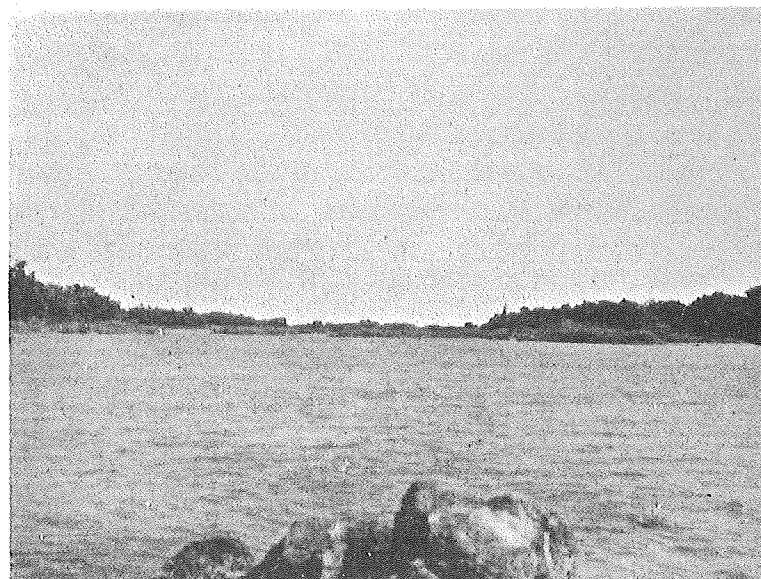
On our return to Bahrdar Giyorgis we availed ourselves of a following wind to put up a sail made by tying a man's shirt on one of the bamboo poles, held up by a rope grasped by a man in the front of the *tankwa*. The base of the pole could not be fixed in the reed bundles, but it was supported on them. In making this experiment we were taking advantage of the absence of Nagadras Ayana and his other Waitos, who were building the new rafts. They had treated with scorn all my suggestions that we might try to gain a little speed by occasionally putting something up to act as a sail when the wind was favourable. The man they had left behind was very young and pliable, and sat in the stern steering, with his rowing-pole acting as a rudder. We made good progress, but having no keel the *tankwa* was inclined to drift sideways when the wind was on the beam. Being sure of the success of the improvised sail, I was emboldened to try it again on several occasions

during the lake journey after the other Waitos had returned, but although it gave an undoubted advantage in the matter of gaining time they would never acknowledge its merits. When we hoisted a sail on one of the *tankwas* and all sat peacefully allowing the wind to do the work, it was amusing to see the Waitos on the other two *tankwas*, one punting astern and one rowing in the bows, straining every nerve in order to keep up and prove that there was nothing in the new idea.

At Bahrdar we were close to the lake outlet where the overflow begins its long journey to Khartoum under the name of the Blue Nile River—known in Abyssinia as the Abbai, and called by me the Big Abbai to distinguish it from the Small Abbai which flows *into* the lake.

I walked one morning among forests of papyrus to see the main crossing at Kamforo ferry, where, during the high-water season, the trade goods pass over in *tankwas*. There is also a ford several miles downstream at Igr Bar, or foot-gateway, which mules can walk through in the dry months. The flow at Kamforo is deep and swift, the water-level is only about ten feet below that of Lake Tana, and it is curious that the lagoon there should be the limit of the crocodile range on the Blue Nile. While there are a few small cataracts between here and the lake, which is only a mile away, there is no natural obstacle that would stop a crocodile from entering Lake Tana if it wished, and yet although the hippopotamus lives there the crocodile is never seen.

Crocodiles are not often encountered in the first twenty miles of the Blue Nile below Lake Tana, although they swarm in suitable pools further down. I was told that at Kamforo one had killed a bull-terrier belonging to a European. A few days later the crocodile paid the penalty, being killed with a rifle. The highest point at which I have myself seen them is in the lagoon above Tisisat



KAMFORO, BLUE NILE, LOOKING UPSTREAM
A site suggested for the Lake Tana regulator



DEBRA MARIAM LAGOON WITH INLET FROM LAKE TANA (p. 161)
A site suggested for the Lake regulator

Falls, where they obviously breed, as on one occasion I brought off a strange right and left with my .410 collecting gun—a guinea-fowl with the first barrel, and a young crocodile 18 inches long with the second. Six years later I saw a young crocodile of exactly the same size in the same place, and my men reported a large crocodile on an adjoining sand-bank. The altitude above sea-level of the lagoon at Tisisat is 5613 feet, and it is 16 miles from Tana, where the altitude of the lake high-water level is 6002 feet. It is not easy to arrive at a satisfactory explanation why the crocodile has not colonised the lake, which seems well suited to its needs. The lake-dwellers say that a very holy monk once lived on one of the islands at the lake outlet who had power over the birds and beasts. He told the crocodiles that it was his wish that they should not pass into the lake, and they have respected his wishes ever since. My own theory is that the temperature, slight as the difference is between the two places, is the deciding factor. The climate on Lake Tana is noticeably cooler than that of Tisisat. It is just warm enough for crocodiles to breed at Tisisat, but it is too cold to hatch the eggs at Lake Tana level, and apparently the crocodile will not live naturally in waters where it cannot breed, although an occasional wanderer may explore the cooler water, which would account for the big crocodile at Kamforo. I took water temperatures¹ in the hope that it might

	<i>Degrees Fahrenheit</i>	
	<i>Air</i>	<i>Water</i>
Bahrdar Giyorgis. Lake shore. March 24, 1 hour after sunrise, shade	68	74
Bahrdar Giyorgis. Lake shore. March 24, ½ hour after sunset, shade	73	75
Gadiro. Lake shore, left bank of Abbai at lake outlet, March 28, ½ hour after sunrise, shade	61	74
Gadiro. March 28, before sunrise	45	73
Tisisat lagoon, March 25, 1 hour before sunset, shade	65	77
Tisisat lagoon, March 25, 10 minutes after sunset	68	77
Tisisat lagoon, March 26, 10 minutes before sunrise	64	72

throw some light on the question, but cannot say that there was much assistance to be gained from the result.

We had to wait several days more for the new *tankwas*, so I filled in the time by going 16 miles down the Big Abbai to Tisisat, crossing the river by the first Blue Nile bridge, and returning by the left bank to Gadiro, a village in Bagemdir near the lake outlet. At this point the river forms the boundary between the big provinces of Gojjam, of which the Governor was then Ras Hailu, and Bagemdir, which after the death of Ras Gugsa had been placed by the Emperor under the rule of Ras Kasa. He had appointed his son Dejazmatch Wand Bewasan as Governor, in residence at the capital of the province, Debra Tabor, and we were accordingly welcomed on his behalf by one of his officials named Gerazmatch Ababa, and an escort. When one enters Bagemdir from Gojjam the passport formalities imposed even to-day are more appropriate to going from one foreign country to another than from one province to another in the same kingdom. Even Abyssinian Government officials will not pass the boundaries without the permission of higher authorities, and the man who had come to meet me would not cross the river and come to my camp, which was just in Gojjam, but received me on the Bagemdir end of the bridge. There are two sets of Customs officials, the Gojjam and Bagemdir men, who keep their respective sides. A ceremony performed at the bridge-crossing is probably a survival of a custom observed by the nobles since the days of Fasiladas in the seventeenth century, when the bridge was first built. A Ras or Abyssinian of high degree, or a European traveller, providing his papers are in order, is met by a *shamma* or shawl stretched across the bridge barring his progress and held by the Customs men. He is then asked to dismount, as no one is allowed to ride over, and walking up to the shawl he draws his sword and cuts

it in two and passes on, his men following. Abyssinians of high rank carry a sword, but I merely went through the motions and pushed the cloth aside with my stick. A present of a few dollars for the Customs men is the last rite of the ceremony.

CHAPTER XIII

LAKE TANA OUTLET AND ISLAND CHURCHES ON THE SOUTH-EAST SHORE

March 26-April 2, 1933

I CARRIED a letter from His Excellency Ras Kasa giving me permission to go by water round the eastern, northern, and north-western shores of Lake Tana, all of which lie in his territory, and to visit the islands. I had written to his son, Dejazmatch Wand Bewasan, informing him when I should be coming and asking that the officer to be sent with the escort should be a man who was interested in Abyssinian history and could tell me about the churches and monasteries on the islands. On March 26th, as I have described, we found this officer with his men drawn up in line on the other side of the bridge, where he presented the Governor's compliments and introduced himself as Gerazmatch Ababa. He remained with me till I passed out of Dejazmatch Wand Bewasan's territory on April 21st, and I found him invaluable. He had a useful acquaintance with Giz and was unusually well-informed on all subjects relating to the history of his own country and on Church matters.

We camped the first night at Beda Wunz, having spent some hours in taking photographs of the Tisisat Falls, for it is only from the left bank of the Big Abbai that the full view of this magnificent waterfall can be obtained. The next day we were back on the lake shore at Gadiro, where the Waitos with the new *tankwas* were awaiting me.

Gadiro is near a water-grass plain a mile wide and one and a half miles long. It is submerged at high lake, but at the time of our arrival it was covered with grazing cattle.



LAVA BARRIER AND LAKE TANA OUTLET AT CHARA-CHARA CATARACT,
MARCH 28TH, 1933



TANKWAS OF THE EXPEDITION RETURNING FROM RIMA ISLAND (p. 168)

I counted over a thousand. This camp was a good centre from which to examine the lake overflow at Chara-Chara cataract, and the maze of reed-fringed lagoons and small lava-rock islands among which the lake-water wanders to its exit into the Blue Nile channel. From an engineer's standpoint this is the most interesting part of the lake, since it is in the cataract area that any works intended to regulate the flow of the water would have to be constructed. There are several outlets, and the operations would not be confined to the one selected as the most suitable site for the regulator, for dams would have to be constructed across the others. Most of the water passes into Debra Mariam lagoon, entering either to the north or south of Debra Mariam Island, and in at least one of the engineering schemes the south channel was selected as the regulator site; in another it was Kamforo. Not only is this whole area hidden in tall papyrus-beds, which makes survey work difficult, but there is no real land: all the islands are piles of big, loose scoriaceous lava-cubes, a most difficult material to excavate or make watertight. These blocks are covered with a thin layer of soil which allows big trees to grow. Another problem that has exercised the minds of the engineers is how to secure the storage of sufficient water without raising the level of the lake more than a few feet, in order to avoid inundating the low-lying grazing- and plough-lands round the lake shore, and also to keep the high-water level below that of the more important churches. In this respect the building of the Tana regulator differs from most works of a similar kind, where it is only necessary to build a dam and raise the water to the required level, which is a comparatively straightforward engineering project.

We embarked on Debra Mariam lagoon and rowed out into Tana through the outlet south of Debra Mariam Island, and continuing south passed outside the islands of Hanna and Arsima and along the coast almost to Bahrdar

Giyorgis Church. Most of the islands are named after saints and it is probable that they once contained churches. Hanna, for instance, is St. Anne, the mother of the Virgin Mary. Arsima is either a saint or a martyr; it will be remembered that a church on Dek Island was dedicated to her, but I have not been able to find any literature that mentioned her.

We returned, passing between Arsima and Yibaret Islands, went south of Shimabo Island and entered Ifwada lagoon. The lagoon was land-locked to the south, although when the lake is high it overflows at the south end into the Abbai channel; so after poling round the lagoon we went between Hanna and Shimabo Islands, and thence into Debra Mariam lagoon. I hoped to be able to go down the Abbai but got no farther than the main barrier, the lava-reef at Chara-Chara; had we attempted to descend the cataract it would certainly have smashed the *tankwa*. The drop at the fall is perhaps eight feet, the water tumbling down a series of cascades. The formation of the lake by the lava-flow is very evident to anyone standing on these rocks, which form a perfect natural dam. The wear and tear on the surface of the lava, due to the constant water-flow, in addition to the disintegration caused by the blows of tree-trunks and other debris hurtling down during the rainy season, can also be very clearly realised. A piece or two of rock displaced here might mean a foot taken off the top of the lava, and that in turn would reduce the level of the lake by a foot. On March 28th there were at least three big separate rapids, fed by streams running in channels cut through the lava. When the lake rises these streams will merge and make the whole belt of lava one roaring cataract. Local tradition agrees with the theory that the level of the lake has been lowered by some five or six feet in the last three hundred years, and my inspection of the lava barrier left me convinced

that it has been and is still being lowered by erosion.

We now returned to Debra Mariam Church on Debra Mariam Island. The priest said that it was founded by Abuna Thadeos during the reign of Amda Seyon (1314-1344), the grandson of Yekuno Amlak. There is no doubt that it was once a famous monastery, but its glory has departed. It is mentioned twice in *A History of Ethiopia*, where it is related that the author of an Ethiopic work of the reign of Sarsa Dengel (1563-1597), the *Mazmura Krestos* or Psalter of Christ, was a monk of the monastery of Debra Mariam. The chief value of this book lies in the quotations which it contains from ancient works, as the originals of several of these are not to be found in Europe.¹ The second reference to the monastery is in connection with the reign of Iyasu I, who ordered the principal monks of Debra Libanos and Tadban and others to go to the island of Debra Mariam to discuss the faith and study the scriptures.² The church is built of red rock like that used in Kebran, laid in mud mixed with straw. The original church had been constructed with lime mortar, but this had been burnt down during the period of the Walloch rulers, and some of the books were destroyed. The church was rebuilt by King Theodore II and is still in good condition. The lines of the masonry are simple but are straight, suggesting European workmanship, and this is probable, as European craftsmen were employed at the court of Theodore. The Superior of the church is a Memhir. I was shown the Mazgab or Register, a parchment book with a wooden cover, containing the four Gospels and four good pictures of the evangelists.

Abuna Thadeos, the founder, is believed to have had the power of performing miracles, and it is said that when he first went to Debra Mariam Island to establish the church he divided the waters and walked on dry land like

¹ *A History of Ethiopia*, p. 373.

² *Ibid.* p. 410.

Moses when he crossed the Red Sea. In the Register it was stated that the Emperor Amda Seyon gave Debra Mariam fifty subordinate churches—ten from Dimana up to Muzgadam, ten in Tigray, ten in Agau, ten in Mecha, and ten in Shoa. It was first called Debra Sakon, but after the Emperor Baeda Mariam was christened there he begged his father, Zara Yakob (1434–1468), to have it made a *gadam*, like Daga, and called Debra Mariam. It will thus be seen that in the beginning it was a rich and important church, though now it has fallen from its former glory, has no churches subordinate to it, and has become a Government church, that is to say, it is under the Governor of Bagemdir. The boundary of Gojjam and Bagemdir runs close to Debra Mariam. The island itself is in Bagemdir, but Shimabo, the next island, is in Gojjam.

A pile of books was visible in the Holy of Holies, but there was not time to examine them all. The only volume that gave the actual year to which it belonged was a modern one, a new parchment copy of the Gospels in Giz, dated 1909, with the seal of the Empress Zawditu. Another work was dated 963 years after the Martyrs, and since my return to England I have been able to make this a little more definite. The Era of the Martyrs, also called the Era of Diocletian, begins with A.D. 284,¹ so it would appear that the book was written in 1247 if the volume I examined was the original.

Another book containing the four Gospels began: "The preaching of John, son of Walda Zabdeos [Zebedee in the Bible] one of the Twelve, written in Unian [Greek] for the seven countries of the Ephesians thirty years after Christ's ascension and seven years after the reign of Tiberias Caesar and eleven years after King Neron King of Rome". A full translation of these pages might have indicated the original manuscript from which it was

¹ *A History of Ethiopia*, p. 139.

copied, and where it was copied. It is certain that the ascetics who came to Ethiopia in the fifth and sixth centuries had access to the libraries in Egypt and to the earliest Christian writings that were there, but only the few scholars who are deeply versed in these documents can give an opinion that is worth having. In 1934 the British Museum acquired from Egypt a papyrus of the life of Christ, which is said to have a close connection with St. John's Gospel and to have probably been written, like the Fourth Gospel, for the Christian community at Ephesus.

The church contains two metal bells, one old and roughly cast, the history of which I did not ascertain, and the other presented, I was told, by Mr Grabham of the Grabham and Black Mission.

We left Gadiro on March 29th, and, poling near the shore without passing anything of particular interest, entered the Galda River at its estuary and camped on the bank. It is a perennial river, but there was little water coming down. Several large forest trees had been deposited on the bar half a mile out in the lake, and the branches sticking out of the water made convenient perches for cormorants, darters, and other water-birds that were sitting in the sun and hanging out their wet wings to dry. This was a reminder that in the rains the Galda is not the tranquil stream beside which we were camping. The muddy river-water, which would appear never to be quite clear, can be seen lying half a mile out in the lake and drawing gradually towards the Abbai. The Galda flows for the last mile or so of its course through the flat lands of the Fogara plain, which we were entering. It occupies a large area on the east shore of the lake, and for a distance of ten miles from the shore the land is very little above the level of the lake during the rainy season. From the evidence I was able to gather on this journey there seems

little doubt that before the lava barrier at the outlet was eroded, and when the lake water stood six feet higher than it does to-day, the Fogara plain was submerged and in fact formed part of the lake.

The following day we went on up the coast and visited Bet Manzo, an afforested cone-shaped island a mile out in the lake, to see a church named Madhani Alam or Saviour of the World. On the island, which is circular and only 100 yards in diameter, we saw a building with walls of rock and mud and of the usual Abyssinian round-church type. I had been told that a solitary monk lived on the island, but we found his home closed, the door barred, and the place apparently completely deserted. The explanation given was that the monks had grown tired of feeding pirates. Secluded islands such as Debra Mariam and Bet Manzo make ideal retreats for religious recluses but equally safe refuges for law-breakers, who expect the monks to feed them while they are in hiding. The monks, being unarmed, have no means of resistance. Only a few years before, Bet Manzo had been turned into a fortress by an official, a Fitaurari, who had defied the authority of Ras Gugsa Wolye, the Governor of Bagemdir, and had fled to the island with his armed band. The officials of the Ras collected all the available men and *tankwas* from the countryside, and a "naval" battle seemed imminent; but they found that the outlaw had disappeared over the lake by night and had entered the province of another governor, where, since the two governors were not on friendly terms, he had no fear of being given up so long as he did not offend his new lord. I noticed that a thick wall of loose rock had been built round the church. The interior of the building is decorated with pictures, crude in conception and design. One of them portrays St. John, depicted as a small figure in the left arm of the Virgin Mary. He has a black beard and is sucking Mary's breast, which Christ,

also a small figure of a man, in her right arm, is pushing towards him. I was naturally mystified and asked for the interpretation. It was explained that this illustrated St. John xix. 26-27: "When Jesus therefore saw his mother, and the disciple standing by, whom he loved, he saith unto his mother, Woman, behold thy Son! Then saith he to the disciple, Behold thy Mother!"

Leaving Bet Manzo, we rowed straight to Korata on the mainland and passed on up the coast. Korata Church was not visited, as Rassam gives an account of it in his book. It stands on a hill 100 feet high, close to the shore and covered with big trees, under the shade of which are the coffee-gardens for which it is famous. We passed the small island of Ganj Amba a quarter of a mile from the shore, but did not stop, the island being deserted and the Church of St. Michael a ruin, and went between the headland of Igr Manzo and another island, 50 yards in diameter, which is called Oafgoja Siyon (Zion). It apparently once held a church, although there is no sign of it to-day. When I asked for an explanation of this I was told that when the Ark of the Covenant was brought to the region of the lake by Menelik I it was taken to these islands before being established on Tana Kirkos Island, where it remained. Any place where it rested was afterwards known as a church, even if no building was erected.

We now turned into a most beautiful bay or lagoon, called Abwara, on the mainland and stayed the night. There was no village near. Forested hills formed the background and came down to the water's edge. The meadows near the shore were golden with the flowers of a small African marigold, the seed of which I was able to gather and grow in England.

Next morning, after issuing from the mouth of the lagoon, we rowed straight to Mahdera Sibhat, an island a mile or so from the mainland, 100 yards in diameter and

20 feet high. It is empty now and deserted, but here once stood a church called Kuaskuam, which was founded in the reign of Sarsa Dengel by one of the Emperor's nobles. I had in my travels come upon several churches named Kuaskuam, and had been unable to find the origin of the word, and as some of the better-informed local inhabitants were with me I took the opportunity of asking its meaning. It was, they said, the name of the parish or locality in which the Virgin Mary lived while in Egypt. I have not been able to confirm this in any Ethiopic literature. During the discussion they mentioned that Frumentius, the man who brought Christianity to Ethiopia, was known by three names in Abyssinia: Frumentius, which is very seldom used; Abba Salama, the one by which he is generally referred to; and Kesati Birhan. I also heard that the piece of the Cross brought from Jerusalem to Abyssinia during the reign of David I is believed to be to-day in the Church of Geshon Mariam in Yeju in Ambasal.

A channel 50 yards wide separates Mahdera Sibhat from the small island of Baria Magaja, which is a good example of an island which has recently emerged from high-flood level. It has only a few feet of permanently dry land, on which is one young *warka* or fig-tree about ten years old. Had the island been above flood-level since the first formation of the lake this would have been a big tree of mature age. This fig tree is always the earliest to succeed in colonising under such conditions; it seems to be independent of soil, and the roots creep among the crevices of the bare rock while the branches and leaves flourish. Similar trees were noticed on several islands of equal height.

From here fifteen minutes' rowing brought us to the island of Rima, 300 yards in diameter and 20 feet high. On it stands another church of Madhani Alam (Saviour of the

World). A book called *The History of Mary* states that it was founded in the reign of Isaac I by his brother Aba Nom, and rebuilt by Ras Gugsa, called the Great.¹ The Ark, which came from Debra Libanos, was consecrated by Abuna Bertlomaos in the reign of Isaac. Another book was a new copy of the Chronicles on parchment. This gave the Kings of Ethiopia from Adam up to Menelik I, and probably up to recent times, but I only copied the part from Menelik up to the Zagwe period for comparison with King Lists translated and published in Europe.

Another volume, entitled *Monograph of Walatta Petros*, is probably unique. Walatta Petros, a nun, was tortured and chained up by the Emperor Susenyos, who had been converted to the Roman Catholic faith by the Jesuit missionaries, because she refused to abjure the faith of her fathers and to take Mass as the Roman Catholics did. Her persecution ended when Fasiladas came to the throne, for he expelled the Jesuits from the country and re-established the Alexandrian faith. It is written in the *Monograph* that Walatta Petros died in the Year of Mercy 7165—possibly meaning that number of years after the Creation. Her coffin is in the Holy of Holies in Rima Church where she used to pray, but the important church at Korata was dedicated to her memory by Fasiladas. The bones of the Emperor Sarsa Dengel, Aba Nom, Abuna Bertlomaos, and the father of Walatta Petros, are also in the Holy of Holies at Rima. In the Kidist the bones of several nobles lie in massive coffins which are tree-trunks hollowed out.

We were shown a peal of three stone bells, slabs of rock 15 feet long and 1 foot thick, which give out three different notes which the priests interpret as the words "*Kafai Gugsa, Kafai Gugsa*". The tones are loud and musical, and the stones

¹ He is also known as Kafai Gugsa. He was the father of Herut, who was the parent of Betul, Ras of Gondar and father of Yetege Taitu, the Queen of the Emperor Menelik II.

are the same slate-like rocks as those used for the bells I had seen at Kebran. The legend concerning them, as told by the priests, was that when Aba Nom was standing in Gorgora on the north of the lake, the three long stones fell from Heaven and he floated them over the water as they rested on the surface like *tankwas*.

There were several pictures of the Apostles on frames, in which the painting and the treatment of the figures were so good as to suggest that they were by a European. One particularly beautiful Saleda Seul, or triptych, with the Virgin Mary and Joseph with the Child on one side arrested our attention. The figures here also suggest a European artist, but the writing is Ethiopic. Another triptych had on one side a picture of the Virgin and Child, and opposite were portraits of the Apostles. In both of these the mellow colours, particularly the gold backgrounds and rich reds, were superb and looked like old lacquer.

A wooden cross, 20 feet high, with a well-painted life-size figure of Christ crucified, was leaning against the wall.

We were next shown a blue-and-white jar, several feet high, of Chinese porcelain, I think, which had been used to bring the entrails of the Emperor Sarsa Dengel from Sennar. He had died of fever while fighting the savages in the country now known as the Sudan, and had expressed a wish to be buried in Rima. This does not agree with the account of his death given in the Chronicles,¹ but may nevertheless be the correct version.

On leaving Rima we were rowed across the water to the mainland and spent the night below Gugebi, a volcanic hill with lava-cores exposed, about 600 feet high, rising on the lake shore. The sides are precipitous towards the lake, and the foot is in the water. A legend is told about a small church, said to be on the summit, which is dedicated to St. Afkarana Egze, a monk who used to grind the bread

¹ *A History of Ethiopia*, p. 372.

for Holy Communion on Rima. The Devil threw him from the church, but he developed wings and flew across the lake to land safely on the top of Gugebi.

Gugebi Hill, being isolated and higher than anything else in the vicinity, makes a good survey point, and I found that it was still conspicuous when I reached the north-east and northern shores of the lake.

On April 1st we left Gugebi and rowed a mile or more out on the lake to land on Misilai Island. It once contained three churches, Fasiladas, Owsabeyos, and Makaras; now only Fasiladas remains. This church is dedicated not to Fasiladas the Emperor, but, as my companions informed me, to a Greek saint and martyr of the same name, who came from Ansokia. The last two names were those of his sons. Misilai is narrow, half a mile long and 300 yards wide. The church is in good repair and the circular walls are built of red rock and mud. Priests who had come over from the mainland with us described it as a *gadam*, and said it was founded in the reign of Sayfa Arad and had been built by Afkarana Egze. The only church property to be seen was a massive cross of an unusual design with the four projections of even length, and cut out of red rock weighing about three hundredweights. It stands on the floor of the Kidist, and there is a similar cross in the Holy of Holies, which was not visible. Three houses occupied up to a recent date by monks were seen near by, and we looked in, finding only their beds or pallets of dried reeds. The island is said to be visited by pirates, whose extortions have driven the monks away, and who have in addition stolen the Register and some books.

We left Misilai and passed a small island of piled rocks 50 yards in diameter, called Borkatit. The top was a few inches above high-water level, and a little grass had established itself, but as there was no fig-tree it would seem that it has only recently emerged from the water.

We next went over to the lake side of Tana Kirkos Island, but did not land, as I wanted to give a whole day to it on the morrow. As we went by I had a good opportunity of obtaining a general idea of the island. The lake floor slopes steeply away from the shore. We could only punt when 20 yards from land, and the depth was 12 feet; 100 yards farther out I got a sounding of 33 feet. It was a long row, for the island is a mile long and 400 yards wide at the broadest part. The last quarter of a mile of the shore-line to the north was a peculiar stratum of solid basalt 10 feet thick, towering up above us 100 feet in the air, with its base washed by the waves, and looking like a masonry wall of a huge ruined building. The island is well clothed with big trees and vegetation, as there is a layer of soil on the top.

Immediately after rounding the north end of Tana Kirkos we turned into the mouth of the Gumara River and could see that Tana Kirkos can no longer be correctly described as an island all the year round. The lake, during its annual fall of six feet, exposes a causeway between the island and the mainland. It is a local tradition that Tana Kirkos was formerly separated from the land by half a mile of permanent water on which *tankwas* plied in every month of the year, and it was this channel that frustrated the efforts of Ahmad Gran in the sixteenth century to get on to the island and sack the church.

We crossed the bar of the Gumara and camped on the left bank on level grass-land among grazing cattle, on land that was once submerged. The name of the place is Ahun Wata, literally "Now come out", meaning that it has recently come out of the lake. On the right bank of the Gumara is a church called Kristos Samra, on the top of a ridge near which are the ruins of Ifrata, the town of the Emperor Iyasu, but I had no opportunity of going there.

Our camp at Ahun Wata was made memorable by the capture by Turuna Habasha of the fish that took the prize for the biggest fish taken during the lake journey, a Lake Tana catfish (*Clarias tsanensis*) of twenty-eight pounds, but not the award for the elusive *sorɜ*. After a most careful weighing on the clock-face scale by Gabre Hiwat, my interpreter, and incidentally one of the rivals in the fishing competition, we called a committee of local experts to decide whether the fish was a *sorɜ* or not. Some said it was a *sorɜ*, but the majority decided that it was a large *anbaza* or catfish. It had not been taken by orthodox methods: the men had been industriously fishing for *sorɜ* all round the lake without success, and on this occasion, despite the derision of the others, Turuna Habasha had affixed a hook like a butcher's meat-hook on to a line and baited it with a dead fish as big as a herring. He had then tied the rod to the reeds and left it all night, and had found the fish on the end of the line in the morning. Another of the men caught a catfish of about twelve pounds that had an exceptionally narrow head. Several of the lake-dwellers pronounced it a *sorɜ*, although there seemed no other difference. I took the skull to South Kensington, where Mr Norman examined it and identified it as the same species of catfish, and the prize for the *sorɜ* remained unclaimed to the end. I am convinced that the tale of the Lake Tana monster is a myth.

Although there are no fish of the trout or salmon family in Abyssinia, there are several coarse fish that give good sport on rod and line and make a welcome variation to tinned fish on the menu. It is as well to take strong tackle, as some of them make long rushes during the first ten minutes, after which they tire and are easily landed. A catfish of another genus (*Heterobranchus longifilis*) replaces the Tana catfish in the lower and warmer levels of the Blue Nile. One much resembles the other in appearance,

and they are both hideous. I have had some exciting battles with six- to ten-pounders with a hundred yards of line out, and rocks and cataracts between me and the fish. Turuna Habasha also held the record for the *nachasa* (*Barbus macronema*), a barbel-like fish, with a ten and a half pound specimen that he caught on rod and line at Tisisat on the Big Abbai.

A fish which is netted by the Waitos on Lake Tana, and called by them a *kuraso*, is *Tilapia nilotica*. It grows to a weight of two to three pounds, is in colour much like a perch and has the perch's spiked dorsal fin and striped sides. *Tilapia nilotica* is found as far away as Lake Rudolf, where its presence is taken as contributory evidence that this great lake, which now has no outlet, was once included in the drainage area of the Nile.

I found all the fish I have mentioned good to eat; the only precaution that I took regarding them was to have them cooked within an hour or two of being caught.

April 2nd was given up to a visit to Tana Kirkos. Native accounts led me to expect discoveries, and I was not disappointed. We went by *tankwa*, passed along and under the façade of the perpendicular wall which I have already described, landed on the west or seaward side and clambered up a rock-strewn path, past the little house called Bethlehem, which was a ruin, and the *ikrbet*, which was in a little better state of repair, to a building 12 feet high and 14 feet square, with walls of rock and mud, that proved to be a belfry. The bell inside this dark chamber weighs about two hundredweights, and has an inscription in Giz cut in the metal, and not embossed as in the case of the bell at Kebran. By dint of striking numerous matches I managed to copy the writing, the translation of which is:

"This bell of the Island of Tana of Saint Kirkos was made by the priest Atai Aitai from the money of the

Memhir Walda Iyasus in the time of our King Iyoas¹ and our Queen Walatta Giyorgis in the week [of service] of Memhir Zafanu Ba Aimot as Superior [of the church]."

Legend says that the Virgin Mary sat on a large boulder that stands on the top of the rock wall while she was on her flight from Palestine to Egypt, when she stayed on the island three months and ten days. To the eastward there is a similar perpendicular wall-face to that on the west, and a wonderful view is seen from the top, overlooking the Gumara estuary and the lake shore-line to the northward. When one looks down into the clear blue water below, fish can be seen swimming about to a considerable depth. The legend of Gugebi Hill is repeated here, except that this time it was Saint Kirkos who was hurled off the cliff by the Devil and saved by developing miraculous powers of flight.

The church stands in the middle of the island, 20 feet below the cliff, and is rectangular, with the Holy of Holies to the east as in Daga. It is not the original building, for it was rebuilt in the time of Ras Gugsä (the Great), who gave fifty pounds weight of gold towards the expenses. The first church was founded by Abreha and Asbeha, two Kings. When their names were mentioned to me they were always referred to as two brothers who reigned together and thought as one. It will be sufficient for my purpose to accept the year A.D. 333 for their reign, and also for the Ethiopian conversion to Christianity, on which the possessions of the church at Tana Kirkos shed additional light.

I was accompanied there by Gerazmatch Ababa, who had arranged everything with the monks in advance, and by Gabra Hiwat, my interpreter. We found a number of

¹ Iyoas (Joas) I, 1755-1769.

priests and monks awaiting us outside the church door. They had brought out the church drums, and were all keyed up to give the dance that David danced before the Ark of the Tabernacle. I am afraid I watched the rhythmic, sedate movements of this ceremony rather impatiently for half an hour, as I had seen it many times at other churches. Here there was much that was new to be examined, and as soon as I could do so without irreverence, I suggested an adjournment to the church. As there was none of the original church left I did not spend any time in examining the present building, but we formed a group with the chief priests, who were ready to give me their version of the history and legends associated with the islands, and I wrote down as much as I could. The original church on Tana was decorated with whalebone, ivory, and precious stones. Azarius, its first Superior, was the son of Zadok, the High Priest of Solomon's Temple in Jerusalem. Azarius had accompanied the Ark of the Covenant when it was taken from Jerusalem to Ethiopia by Menelik I. The Ark had been brought to Tana and placed in a tent, and had remained there six hundred years before it was taken to Aksum. No church was built on the island until the Ark had gone. This Ark is called Siyon (Zion), and the Ark called Mikael, which came from Egypt, is also in Tana. I do not think that it was claimed that the originals of these two Arks were now in Tana, and I imagine that the priests were speaking of copies of them, but I did not ascertain this point clearly at the time. It is not written in their books how long a period elapsed between the departure of the Ark for Aksum and the building of the church on Tana Kirkos.

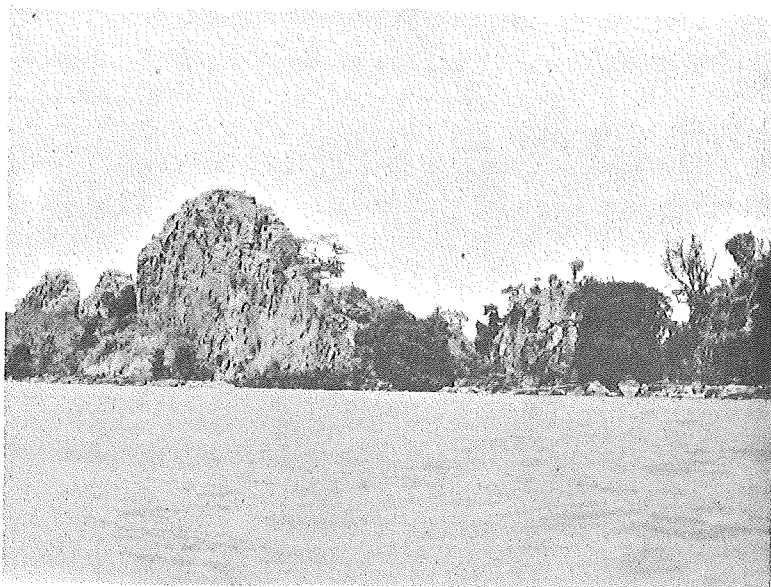
Among the church's chief relics was a heavy bludgeon made of dark wood, 3 feet long and 3 inches in diameter, taken from one of Ahmad Gran's generals, Ferasham Ali, by St. Kirkos when the latter was a child. This is the only

time I have heard of Ferasham Ali. I have not been able to find his name mentioned in any of the Ethiopic literature that has been translated.

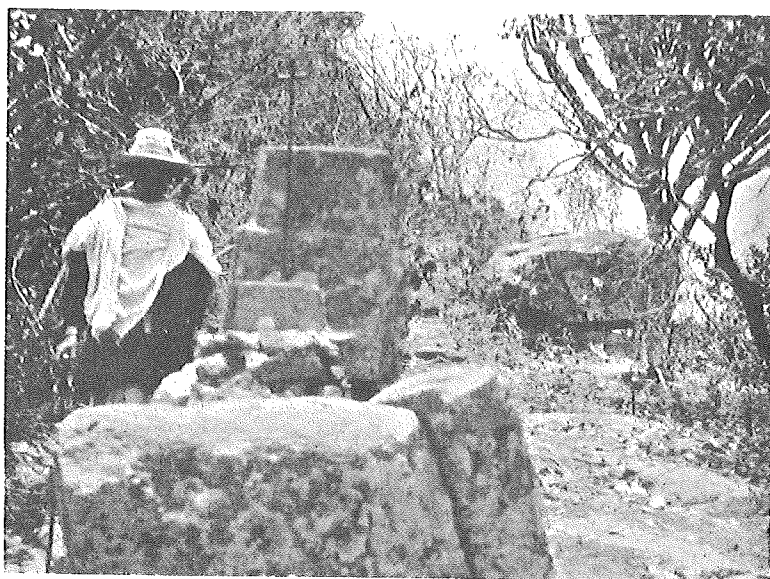
The monks then brought out the staff of the Emperor Gabra Maskal (A.D. 550). The top had a decorative design of a brass cross, the stem was long, and the bottom had an iron ferrule. The Emperor, who was a zealous Christian, had presented it to the church. There was also the iron handle of the switch with which the priests of the old Hebrew religion in pre-Christian times used to sprinkle the people with the blood of sacrifices. The switch part had completely disappeared.

We next examined the clothes of Arad Kahan,¹ who lived in the reign of Gabra Maskal. These vestments, in brightly coloured cloth, are still worn in Church ceremonies by priests in attendance on the Ark. A glass bowl, the bottom of a glass ewer, was said to have been used by King Solomon as a wash-basin and to have been brought by Menelik from Palestine. The top had been broken and the pieces lost. It was difficult not to comment on this, as it was made of clear glass, the secret of making which was not known in Solomon's time, but it probably came from Palestine. A more interesting possession was a circular bowl of rough bronze or iron, a quarter of which had unfortunately been broken off and lost, taking with it part of a most interesting Sabaeen inscription. The bowl, called a *gomr*, was used by Solomon, and in it he gave wheat to the priests. It has one handle on each side, one vertical and the other horizontal, each with wheat-grain pattern ornamentation along the middle. The bottom of the bowl is roughly clamped on. The inscription, in letters one inch high embossed on the metal, runs round the top of the bowl. I took a careful copy and sent it to the Director of the Académie des Inscriptions et Belles Lettres, Paris, who

¹ Yared the Deacon. *A History of Ethiopia*, p. 265.



ROCK RESEMBLING MASONRY WALL, TANA KIRKOS ISLAND,
LAKE TANA (p. 172)



ISRAELITE SACRIFICIAL ALTARS WITH CROSS OF FRUMENTIUS ON TANA
KIRKOS ISLAND, LAKE TANA, AND GERAZMATCH ABABA

Israelites were on the island, that is, before the conversion of Ethiopia to Christianity, Tana Kirkos was called Debra Sahel. I have wondered whether this has any connection with the star Canopus, which in Arabic is *Sohail*, and perhaps the shrine may have been dedicated to a star. Another statement translated was that Christ was born 5500 years after the Creation. The Empress Taitu, the Queen of Menelik II, had given a copy of the Old Testament in Amharic, and one of the pages was stamped with her seal. Another book was a copy of the *Book of Mystery*, written after the conference of 318 priests (the Council of Nicaea). The scribe said that he was Gabriel Walda Batrik, and that he wrote the book in Debra Kadus, in an Arab monastery called Antonios, at the end of Mazia (April-May), 983 years after the Martyrs (A.D. 284), which is, according to the Jewish calendar, the year 765, in the month of Rejib. It had been translated from the Unian (Greek) language into Arabic, and it remained in Arabic 315 years. Afterwards Siliq translated it from Arabic into Giz. There was one illustrated work, a *Monograph of Christ*, but the art displayed was crude.

No Emperors have been buried on Tana Kirkos, as the ground is considered too sacred, but the grave of Saduk the son of Azarius, the son of Zadok the High Priest of Jerusalem, is there.

We were taken to see what is perhaps the most interesting thing on Lake Tana, three short stone pillars standing together not far from the church, which give one of the few glimpses that are to be obtained of Ethiopian pre-Christian times. They are the sacrificial altars used by the Israelite priests. Circular basins were cut in the top, into which the blood of the victims was allowed to flow and from which it was sprinkled on to the congregation by the priests. On one pillar the cross carried by Frumentius has been erected. It was placed on these altars by his own hand

as a symbol that Christianity had arisen above the pagan rites of bygone years.

Tana Kirkos Island consists of two divisions connected by a causeway of rocks, which used to be permanently covered by water, making two islands in olden times, but is now only submerged during the months when the lake is high. We next walked across it to the south island, which is reserved for nuns. We passed many coffee plantations on the way, and some families of the cultivators were living there, but there seemed to be no nuns. The explanation came when we turned a corner and saw that the walls of the church, which is called Kuaskuam, had given way and the building had fallen flat. My companions seemed as surprised as I was at the discovery, for evidently the collapse had only just taken place. A year afterwards I heard that the church had been rebuilt.

We rowed back to camp by the way we had come.

CHAPTER XIV

LAKE TANA: THE ISLANDS OF THE EAST AND NORTH-EAST COAST

April 3-6, 1933

BEFORE we could continue our journey the next morning we had to get the mules across the Gumara River. The lower reaches of the river are level, as it winds over the Fogara plain, and the water is deep, being banked back by the water of the lake, so the nearest ford is several miles upstream. The first suggestion was that we should follow the semicircular bar out in the lake where the water is shallow and the bottom sandy and firm, but as my mules and donkeys were used to swimming rivers we took the baggage over to the other bank in *tankwas* and swam the animals straight across. It was difficult to persuade the first few mules to start, and men had to swim beside them to guide them to a landing-place; but the rest followed without much trouble, and after an hour and a half, during which the muleteers shouted themselves hoarse, we were able to move off in the *tankwas*.

Our first visit was to Chikla Manzo Island, once the summer palace of the Emperor Iyasu I, who was murdered there by the orders of his son Takla Haimanot, who succeeded him. The deserted forest-clad island, 200 yards in diameter and 20 feet high, lying half a mile from the mainland, contains the ruins of a church, and we stumbled over a fallen building here and a pile of masonry there as we made our way through the tangle of undergrowth. A water-gate house on the west had two stories and several sound arched doorways, and the roof was in good repair.

A building on the east, called the prayer-house, was twenty feet square with walls four feet thick made of rock and lime mortar, and had three stories with stone steps leading up to them. Towards the end of his reign Iyasu became a religious recluse, and it was in this building that he was killed.

We now rowed to the mainland and kept close to the shore as far as Gumara Ras, which, according to tradition, was once the estuary of the Gumara River, where we camped. The old bed of the river can still be seen stretching across the level grass-flats of the Fogara plain. On a hill about nine miles away on the edge of the plain, a clump of trees was pointed out called Tankwa Mawacha, or the place where *tankwas* come out, and it seems that it was up to this now far-distant and dry harbour lying below the hill that the *tankwas* used to ply when the plain was submerged and formed part of the lake.

The small bay at the old estuary is still full of rich mud which becomes exposed as the water of the lake goes down in the dry season, and here I saw one of the biggest and most varied assemblages of wild-fowl that I had seen in the country. All night long as I lay in my tent the swish-swish of strong wings could be heard as Spur-winged Geese flew to and fro overhead, varied by the melody of big packs of Crowned Cranes, continually calling as they passed; a single bird has rather a monotonous note, but a chorus of several hundred gives a volume of sound that is pleasing and is always associated in my mind with great open spaces. In the morning the shallows and mud-flats were teeming with bird life, and it is only possible to mention a few of the kinds that were there. No one shoots them, so they have little fear of man, and it was seldom necessary to use field-glasses to identify them. There were hundreds of Yellow-billed Duck, whose call resembles that of the Mallard, but the drake and duck both have a sombre plumage and are so much alike that I could not

tell which was which. Some parties of White-faced Tree Duck justified their more usual name of Whistling Duck by keeping up a continual piping. Packs of Widgeon and Pintail Duck were there, come from Europe and Asia for the winter months, and I could see a few Comb Duck, a species which I failed to get for my collection. Then there were Glossy and Sacred Ibis busily probing the ooze for worms, and the Large White Heron, which is the biggest of the egrets, with snow-white plumage. A comic element was introduced by four White Pelicans, which with their huge bills sticking out in front and the foreshortening of the tail look like caricatures of birds. On the foreshore great flocks of Waders rose, settled, ran and fed for a while and rose again for no apparent reason, as is their wont. A few Curlew were more often heard than seen; theirs is always a fascinating call to hear. It was a delightful place for a naturalist, and I was sorry that I could not spend a few days there.

We were camped on ground slightly higher than the lake, with nothing but the open water on one side and the great flat grass-plain with here and there a cornfield on the other side.

Three churches with a few tall trees could be seen out on Fogara. I asked about them but had no time to visit them. The chief interest centred round the names, as far as I was concerned, as one of them is dedicated to Kidist Hanna, the Holy Hannah, or Anne the Mother of the Virgin Mary, and another to Ingor Merkorius, a foreigner and a martyr, whose name I have not been able to trace in literature. The other church is that of St. George. All of them are built on artificial mounds to raise them above the water-level. Fogara, even in these days, has a lot of flooded land in the rains, and though some of the villages are occupied throughout the year, a large proportion of the inhabitants are semi-nomadic and move with their im-

mense herds to the distant hill country for the wet season, where they avoid malaria themselves and the cattle are not tortured by flies.

Our next camp was at the estuary of the Rib River. We found that the lake was extremely shallow with a floor gradually shelving away from the land, and a mile out we were punting in four feet of water. Fogara villagers cultivate some of the land at the lake-level. The climate is too warm to grow wheat or barley. I saw mostly crops of *shimbira*, a field pea, and *misa*, a vetch. Along the shore-line there was a broad belt of maize, which is sown on the damp ground as the lake recedes. The earliest sowings were six feet high when we passed on April 4th, and near the water the men were still ploughing with their oxen and sowing.

The Rib brings down quantities of dark sand, and we passed banks of it deposited on the lake shore. The river bar, 600 yards out in the lake, is a semicircle, and parties of travellers with loaded donkeys were passing round it instead of crossing the river. It made a firm sandy road covered by two feet of water, but my men preferred to let my mules swim across the river-bed, which was accomplished without difficulty.

Two miles up the Rib there is a *tankwa* port on one of the most important trade routes for lake traffic. Merchants of Ifag, a small town near by, load bars of rock-salt at the village. This comes all the way from the far salt-plains in the Danakil deserts near the Red Sea, and goes to Agaum-dir, where it is used as money. In most districts it is the only currency, except a Maria Theresa dollar, that is accepted, and in remote villages the people refuse dollars and accept salt, saying, "We cannot eat dollars". The salt-bars vary from three to five to a dollar, according to their size and the market price of silver. A woman goes marketing with a bar, and when small purchases are made she

breaks off a bit of salt and pays with that. We had met several fleets of as many as a dozen *tankwas* loaded with salt-bars on this route. They follow the coast at first and then strike across the open water to Zegi. On the return journey the cargo would be Zegi coffee, which finds a ready sale anywhere on the way.

Not many years ago this was a route much used by slave-traders, who brought their victims openly from Southern Abyssinia, crossed the Blue Nile at the ford below Gumr Market, used the returning salt *tankwas* to take them over Lake Tana, then went on to Ifag and from there to the Danakil deserts with the caravans engaged in the salt trade, and from the Red Sea coast by dhow to Arabia. As the measures taken by the Abyssinian Government against the trade in slaves became stronger, owing to outside pressure, and as the authorities began to enforce the proclamations with penalties for selling slaves issued from time to time from Addis Ababa, and long ignored, the slave caravans no longer travelled openly by day but moved by night. The sales of slaves that once were held in the markets, and for which an item of about ten dollars appeared in the market toll-list, were abandoned, and instead took place in secret at lonely villages in the forests. In the last few years this and other slave-trade roads have been closely watched by specially appointed Abyssinian officials. The leaders of slave caravans have been caught and convicted, the sentences have been carried out, their human cargo has been taken from them and set free, and it is doubtful whether at the present time the routes are used for any but legitimate trade.

Fifteen miles from the estuary the Rib is crossed by a masonry bridge that carries the old royal road from Gondar to Debra Tabor. I had seen it several years before when travelling that way, and the similarity between its style of architecture and that of Portuguese bridges in the country

leaves little doubt that it was built by the Jesuit Fathers or the artisans that accompanied them to Abyssinia in the sixteenth or seventeenth century.

All the time we spent on the Fogara plain we were unable to obtain wood, as it is a treeless and bushless area, and we had to make our fires with cow-dung cakes, the fuel that is used by the inhabitants. Our next camp on the Saban River was the last we saw of the plain, as we were approaching a different and more broken shore-line where forest-clad foothills descended to the water's edge. Some of the ridges disappeared into the water, forming promontories. Some miles inland a hill near Ifag rose 1000 feet and made a conspicuous landmark called Wusha Turus, or Dog's Tooth. Behind Ifag the highlands of Lebo can be seen rising to a height of 10,000 feet above sea-level, forming the water-divide between Lake Tana and the Takkaze River, which, after a circuitous route round the Simen Mountains, turns to the west, forming for part of its course the boundary between Ethiopia and the Italian colony of Eritrea, then enters the Sudan, where it is known as the Setit, and finally joins the Nile by way of the Atbara River.

On the mountains behind Ifag, my companions told me, are the graves of Ahmad Gran and his horse. They lie at a place called Gran Bar between Aba Chara and Dunkaz. The Abyssinian is fond of his horse, and it is not unusual to find that a favourite charger has been given an honoured burial. Gran Bar has not, so far as I am aware, been seen or mentioned by any European traveller. It was too far off for me to break the journey and go to see it, but it is obvious that it is the site of the great battle between the Emperor Galawdewos, assisted by Portuguese musketeers, and the Muhammadan invaders, at which Gran was killed. My companions said he was shot by a bullet from the rifle of the Emperor Galawdewos. This does not agree

with the story of the battle given in the *History of Ethiopia*, in which a Portuguese soldier called Pedro Leon is given the credit of having shot Ahmad Gran, and having cut off his ear and produced it to Galawdewos as proof that he had done so. The Portuguese, who had been sent on a crusade to save the Christian kingdom and stem the tide of the Muhammadan advance, would naturally wish to claim such an important feat for one of their own men in their writings, although on the face of it it seems unlikely that the Emperor could recognise an ear as that of the Muhammadan leader. The Abyssinians also, although glad to have had the help of the Portuguese musketeers, as their position would have been desperate without them, were, once Ahmad Gran was killed, his army driven out, and the danger past, no less anxious that the credit for having shot him should in their own tradition be given to an Abyssinian.

Two bare rock islands came in sight as we travelled up the east coast. Both are white with the excrement of sea-birds and lie a mile and a half from the mainland. The larger of them is 100 feet high and 500 yards in diameter and is called Fikr Asfaj, a free translation of which is "Love, the Destroyer". It is associated in local legend with a romance and tragedy. The story goes that two lovers crossed to the island in a *tankwa* in order to be alone, and were so occupied with each other that they forgot to tie up the *tankwa*, which drifted away unnoticed. When the time came for them to return they searched in vain for their raft, but it was not in sight. It was their only means of escape, for they had taken pains that no one should see them go, and they were too far from the mainland to be able to attract attention. Years afterwards their skeletons were found. The smaller island is called Bohiya.

Between the Rib and Saban Rivers and half a mile inland is a church called Teza Amba Mariam, which is

famous locally as one of the resting-places of the Virgin Mary when on her way to Tana Kirkos by *tankwa*. The Saban is not a perennial stream, but on April 5th there were some big pools of clear water in an otherwise dry bed. On the pools were some of the tamest water-fowl that I have ever seen. There were three kinds, Garganey, African Pochard, and Shoveller. I watched them at close quarters and they were as confiding as farmyard ducks. It was only by throwing clods of earth at them that they were induced to fly and I was able to assure myself that they were not pinioned. Some big packs of Widgeon that we had passed on the lake were the only wild-fowl that from any long distance showed fear of man. They had evidently recently arrived from Europe and were well acquainted with a punt gun, for they would not allow our *tankwas* to approach within half a mile of them.

We were advised to camp on the mainland at the mouth of a small stream, the Kuman, that lies opposite the island of Mitraha, which would give us the opportunity of crossing to the island the following morning. The coast-line was very much indented, and we went in and out of what seemed an endless number of bays as we followed the shore. There were ruins of churches on the points of two promontories and we landed to examine them; one was Karania Mariam and the other Egziabher Ab, both unimportant. In one bay we went ashore to rest, and the men decided to bathe. There seemed to be a shallow lava shelf running out into the lake, and much to their surprise they walked into water little more than ankle-deep farther and farther out until they became small figures in the distance. They were only able to obtain their swim half a mile from the shore, where the shelf seemed to end abruptly and a line of darker blue marked the beginning of deep water. We did not get into camp until the afternoon, and were

caught by a high wind that raised big waves. The *tankwas* rocked and plunged, and it was all very uncomfortable, more especially when rounding the points of promontories where breakers were rolling over rocks and making a considerable noise. We had as a guest a portly and dignified official from the district, to whom we had given a seat in one of the *tankwas*, on which he travelled with all the circumstance that he considered appropriate to his high position until the last hour, when he grew alarmed at the waves, and thinking that the *tankwa* would capsize and that all was lost, threw his dignity to the winds, seized a pole, and rowed with all his might, much to the amusement of the rest of us on the other *tankwas*.

On April 7th we rowed straight across the three-quarters of a mile of water to Mitraha, a circular island 50 feet high and 500 yards in diameter. Priests were living on the island, but I saw no monks. We were taken first to the new church of simple design built in the reign of Menelik II on the site of the grave of Waizero Hita Cristos, the mother of the Emperor John. The first church was established on the island by the Emperor David I, and the Ark dedicated to the Virgin Mary was brought from Alexandria at the same time that a piece of the True Cross arrived in Abyssinia. The chief priest told me that six pictures of the Virgin Mary and Child came with the Ark; one was placed in Mitraha Church, three went to Gojjam and were given to the churches of Debra Work, Jiballa, and Nazareth, while one went to the Church of Saint Tadbaba Mariam, and one to Lasta Jamado. The picture at Mitraha was removed by the Emperor Theodore to Magdala shortly before his defeat by the English army, and the painting was sent by Lord Napier to England with other manuscripts and books. I was asked if I had seen it, and the priests hoped that some day it would be returned to them. I asked about the picture of Christ with the Crown

of Thorns, said to have been painted by St. Luke. It was taken from Aksum at the time of the Gran invasion and sent for safety to the islands of Lake Tana,¹ but these priests knew nothing of its whereabouts.

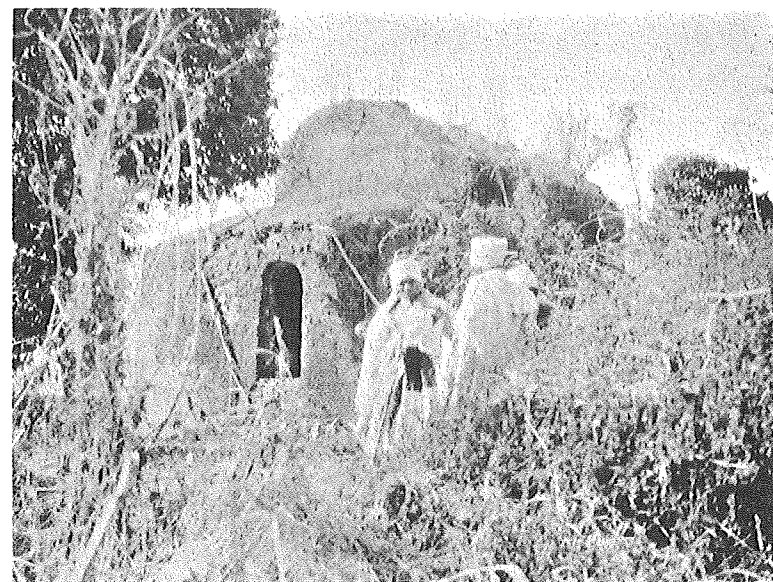
The church built by David was burnt by Gran, who threw fire from the mainland, and the actual site is no longer known. It was rebuilt by the Emperor John I, called John the Blessed, but again burnt, this time by the Dervish army in the time of the Khalifa, and we were taken to see the ruins. The building is square at the bottom and round at the top, which is supported on the square by timbers. It was built of red stone blocks brought from Gorgora and lime-mortar concrete which was still in good condition. The Holy of Holies at the east end is divided from the next division by four square pillars fifteen feet high, joined by three arches of good design. John I had been buried in a mortar-and-rock vault below the floor of the outer division of the church. After the sack by the Dervishes, what little remained of his bones was removed when the new church was built by Menelik II, and placed in the Holy of Holies, and the old vault is empty and the entrance blocked with rubble. The vault had also contained the remains of the Emperor Theophilus, a son of John, and John's queen, named Sabla Wangel, not the celebrated Sabla Wangel, the patroness of literature, but either a Sudanese or a negress brought from Sennar, where the King had met her when on a military expedition. He had her christened, and married her in spite of opposition from the priests, who did not accept her readily as Empress. They said that the Devil was better-looking than she was, and John replied that in heaven she would not be considered ugly.

The mausoleum of Iyasu I (1682-1706), who was the son of John I and succeeded him, is a big rock-and-mortar

¹ *A History of Ethiopia*, p. 405.



MITRAHA ISLAND, LAKE TANA, WITH RUIN OF CHURCH BUILT BY JOHN I.



MAUSOLEUM OF THE EMPEROR IYASU I., ON MITRAHA ISLAND, LAKE TANA

building with an arched roof and stone steps going down twelve feet to the vaults. The first room is eighteen feet square. Iyasu's private vault is at the far end and is a separate small chamber. The big wooden coffin can be seen in a rectangular place like a bath, walled in with rock and mortar. The Emperor's bones had been removed by John IV (1868-1889) to the Holy of Holies in the church built by John I, and all had been burnt by the Dervishes. The top story of the mausoleum is occupied by the mortal remains of members of Iyasu's family, and we saw a box, four skulls, and a collection of human bones, some of which were scattered across the floor. Keladj (the priests pronounced the name "Chelach"), the brother of Iyasu I, was killed by lightning and was buried in Mitraha.¹

Judging from the style of architecture, the mausoleum of Iyasu and the Church of John the Blessed were built by Europeans. They could not have been the work of the Portuguese Jesuit priests, as they had been expelled from Ethiopia, but it is possible that as the persecutions of Fasiladas were directed exclusively against the Roman Catholic priesthood the Portuguese riflemen and artificers whom they had brought with them and who would have been most useful to the Emperor were well treated, married Abyssinian women, and stayed in the country. If their descendants carried on their trades it is reasonable to suppose that they were responsible for some of the buildings erected by the Kings who reigned after the departure of the Catholic Fathers. There is no group to-day in the country that can be identified with the descendants of the Portuguese, and their arts and culture have been lost. I have noticed that the faces of some women in Debra Tabor bear a resemblance to Portuguese features, and the Abyssinians themselves say that the Guragi tribe, whose

¹ *A History of Ethiopia*, p. 415.

men are porters and labourers in Addis Ababa, are the descendants of the Portuguese.

John IV renamed Mitraha Sera Siyon, but this name ceased to be used when he was killed by the Dervishes at Gallabat, and the original one was restored.

The priests said that there were a few books that had been saved from the Muhammadan invasions and the looting of the churches by King Theodore. Among those that I saw was a volume of *Haimanot Abo* ("Faith of the Fathers"), written in the time of John I. It was well illustrated and contained portraits of some of the 318 theologians who had assembled at the Council of Nicaea (A.D. 325) in the reign of Constantine. A strong family likeness is to be noticed in the portraits, suggesting that the same model sat for them all, but the clothes and head-dress, the *akal* or religious crown, differ in each one. Gregorius, Zakarius, and many others were portrayed. They were not full-page illustrations but were small and were inset in the script. Each portrait was decorated with a picture of a curved knife and a small pot on a pedestal for mixing ink, the symbol of a scholar.

Among the books were a calendar by Abu Shahr, a theologian, a work entitled *Gabra Himamat*, which is used for the Lenten fast, and another, *Senkesar*, a monograph of saints, martyrs, and angels, or Synaxarium, neither of them illustrated. The priests said that many of their books were burnt by the Dervishes, but a few were saved, as Abyssinian merchants had brought bales of coffee to store in the *ikrbet* for safety, and the books were hidden under these and so escaped destruction.

In the tall trees on the island a colony of White-bellied Stork were building their big stick nests. They seem to have an uncanny knowledge and preference for sacred places. I only found one other place where they breed on the Abyssinian high plateau, and that was in trees in the

precincts of the Aksum Cathedral. They also frequent the holy island of Tana Kirkos during the winter months, but do not nest there. They are rare birds on the highlands, though plentiful enough in the hot lowlands of the Sudan.

CHAPTER XV

LAKE TANA: THE NORTHERN COAST

April 7-14, 1933

AFTER leaving Mitraha we found little of interest along the coast. On Ankasha point is the site of a ruined church, and on Qallamoch there is another. The country is bush forest, with grazing cattle in the small grass-flats, behind which are the foothills rising gradually to the mountains. In front of us the land became less indented with small bays, and we looked towards the north-east corner of the lake and along the north coast to the straighter shore of the big grass-plain of Dembea. Behind that, 18 miles away, lies what was once the royal town of Gondar, where the ruined palaces built by the Portuguese are all that is left of its former glory.

We passed the estuary of a small river named Wain Arab, and between Qallamoch and our next camp at Sanyo Gabya, or Monday Market, the water was shallow and our Waito sailors, who were hot and tired of poling, jumped into the water and pushed the *tankwas* instead.

We had unexpected difficulty at Sanyo Gabya camp in obtaining clear water, as a strong wind blowing off the lake churned up the mud along the shore, and the men had to wade a long way out with their receptacles before it was possible to get any water for drinking. There was also no wood for firing along the shore of the Dembea plain. The bush-forest line is about three miles from the lake, and all between is flat grass-land covered, on April 8th, with countless thousands of grazing cattle. On April 9th we camped at Dengi, a small point on the water-grass plain of Dembea and just to the east of the estuary of the

Magach, the biggest river that enters the north shore of Lake Tana. Dengi village, or collection of small villages, lies at the inner bend of a bay, and near Liklik we passed a Waito village, as usual close to the water's edge. Here we were able to carry out a most advantageous bargain, for a Waito who had recently come from the south with a new *tankwa* seemed quite willing to accept a few dollars for it and take one of our *tankwas* which was becoming water-logged in part exchange.

A few churches had been seen on the low levels of the Dembea plain—Waina Kidane Mehret, Finero Mariam, and Awah Abo—and no doubt there were others. They were from half a mile to one and a half miles from the shore, and as the accounts given of them did not promise anything of interest I did not go to them.

On leaving Dengi on April 10th, we had to take the *tankwas* half a mile from the shore to find four feet depth of water; nearer the land we continually went aground. After passing the mouth of the Magach River, which has a shallow bar and some mud-flats, we headed across a big bay to the Gorgora Hills five miles away. We were not destined to take the short route, however, for a breeze from the lake was blowing at dawn and continued through the day without change, so that we drifted towards the land and ended by doing a semicircular course about two miles from the shore. The waves were one and a half feet high when we embarked soon after dawn, and as it was exceptional not to begin the day with a breeze from the land I pointed it out to Nagadras Ayana, the head Waito, and asked for his explanation, but he closed all argument by saying that this was the Tabahi or land wind, although it was obviously coming straight off the water. The same thing happened next day, but these were the only occasions on which we commenced the day with a "sea breeze" that continued from early morning until evening.

The Waito sailors had been afraid that they would get out of the depth of their punt-poles in the middle of the bay, but as a matter of fact in some places we found only two feet of water even at two miles from land. We passed the mouth of the Dirma River but were too far away to see it. It is a big river in the rainy season but is not perennial. I had forded it in its higher reaches on many occasions, on journeys to and from Gondar in previous years.

We camped near Debra Sina or Church of Mount Sinai, on a small water-grass plain among the foothills of the highlands of the Gorgora promontory, and the next morning went to see the church, which is perched on the end of a small headland not much above water-level. The original building was erected by Abuna Thomas in the reign of the Emperor Amda Seyon (1314-1344), who had made it a *gadam*, and it had been enlarged by Waizero Malakotawit, the eldest daughter of the Emperor Susenyos. She also had the walls of the Holy of Holies decorated with paintings on linen up to the roof. This church has never been burnt down or sacked, even by the Dervishes, who seem to have missed all the churches on Gorgora although they must have passed near the base of the promontory on their way to Gondar and the east coast of the lake. Twelve massive round pillars made of the trunks of *zigba* trees surround the Holy of Holies, supporting a circle of carved wood which carries the roof. A glimpse of the interior of the Holy of Holies was obtained, and it was seen to be divided into two by two square pillars which form a triple arch. In the middle was standing a wooden cabinet containing the Ark. The doors of the Holy of Holies were of carved wood, and the windows were of open woodwork carved in scroll pattern. In the Kidist on a window-sill there was a skull and a collection of human bones, but the priests did not know to whom they had belonged. We were shown some triptychs of a martyr

being tortured in various ways, including being ground in a handmill of the kind used by Abyssinian women for grinding their corn, and there were others of Christ's crucifixion and of the Virgin and Child, but they did not display any outstanding qualities of conception or execution.

A ruined village stands on the peninsula near the church. It was occupied up to the reign of John IV, but now only the rock walls of the houses remain. One monk still resided there, but the Memhir and priests lived in a village on the mainland.

The books we examined were *Haimanot Abo* and *Senkesar*, neither of them dated or illustrated, and *Tamera Mariam*, or "The Miracles of Mary", and "Saint Michael", which had pictures, some of which were good of their rather primitive kind. Though the books I saw in one Abyssinian library might have the same titles as those in another, I noticed that the contents never seemed to be the same. They are all, of course, in manuscript, and the scribes seem to have granted themselves a considerable amount of licence in dealing with the text.

A strong south wind delayed our departure from Debra Sina. There were big breakers on the rocks that form the shore-line of the Gorgora peninsula; just outside the rocks the water was 13 feet deep, too deep for effective poling, and the men could not row against the wind. Natives of the district said it would go down when the sun got warm, so we waited two hours and left at noon, when it was certainly less violent, keeping at first within a hundred yards of the shore until we had passed the point, when we rowed away from the mainland and went between it and Araba Duba Island, a rock reef 2 feet above high-water level, 100 yards in diameter, and half a mile from land, on which there was nothing but a few fair-sized trees. Another island, Lik Abo, a quarter of a mile in length, was to our left, but was passed by as it contained no buildings, and

we steered towards Angara, an island of about the same size, on which our guides said there was once a church dedicated to Saint Takla Haimanot. As we approached we scanned the foliage of the trees with which the island is well covered, but could see no sign of a building, nor could we find any path through the thick tangle of brushwood; so, assuming it was ruined and deserted, we went on to Jelu Island. This was also empty, but it is surrounded by a rock wall built at the water's edge, and we learned that in days gone by the island was inhabited by a pirate chief-tain named Jelu who used it as a fortress.

I had been sounding the depth of water at intervals since we left Debra Sina in the morning, and the highest reading obtained was 24 feet 2 inches. Reports of the lake's great depth had led me to expect much higher figures off the coast of Gorgora.

We next set a course towards the mainland in order to reach Birgida Mariam, a circular reef-girt island 30 feet high, a quarter of a mile in diameter, and, like most of the islands in this archipelago, well clothed with trees and scrub jungle. There was a pathway leading to the interior and to a church that had recently been erected by the contributions and voluntary labour of men from neighbouring villages on the mainland. The original church had been founded by Amda Seyon (1314-1344), and it had been burnt down and rebuilt three times. There were several monks' houses near by that were deserted but showed signs of recent occupation. The same explanation was given for this as for the temporary abandonment of other isolated islands in the south. Pirates, a term which includes evildoers from the mainland, arrive and ill-treat the monks if they do not supply them with food from their scanty store, so they are driven to seek protection in the larger monasteries.

Continuing our journey close to the shore, we passed to

the right of the small island of Gadlo, which was empty and bare except for a few bushes.

A mile out in the lake a bigger island is conspicuous for some fine forest trees. It is called Sakala Kadus Mikael, but we did not go out to it, as the Church of Saint Michael was a ruin and the island had been deserted. We hugged the coast-line, turned into a beautiful bay east of Mandaba Monastery and camped a mile farther on at the inner bend of the bay. On April 12th we walked to the end of the promontory, on which the monastery stands in most picturesque surroundings. On the land side are rugged forest-clad hills coming down to the water, on the other side the blue water of the lake extends almost as far as the eye can see, but there is a vista of the hazy outline of mountains in the remote distance that forms a frame and completes the picture. In the monastery there were 150 resident monks. A high stone wall encloses the head of the promontory, where they live in a small town surrounding the church of Madhani Alam or Saviour of the World, and in the wall is the entrance gate through which no woman may pass. The monks are tended by negroes who live in a village of their own called Alangai, a mile or so away. These men are free, and they till the land, pay rent and taxes to the monastery, and serve the monks. Anyone who rings the bell of the monastery obtains sanctuary, and his person is safe even from the orders of the highest Government official in the land. My arrival was expected and I had been invited by the Abbot to see the church, so we passed through the gate and found the house and compounds kept in better order than in any other monastery I had yet seen. The church is substantially built in the typical circular Abyssinian style, with walls of rock and mud and a thatched roof. Its founder was Aba Asai, a prince who had become a monk, the son of the Emperor Amda Seyon. Unlike many of the churches on the

lake, Mandaba Madhani Alam had never been burnt down, and it was fortunate in escaping the notice of the Dervishes; but during the famine in King John's reign, a period of which even now natives of Gojjam and Bagemdir speak with bated breath, Mandaba had been deserted for a long time.

The wall-paintings, all on linen, were not very good, the best of them being a picture of the Crucifixion. Many of them had been removed from a neighbouring parish, from a ruined church called Abaza Kadus Mikael, founded by Nikalawos, probably the Nikalawos who lived in the reign of John I and led the monks, who were followers of Takla Haimanot, against the followers of Eustathius in the great religious discussion that took place on the nature of the body of Christ.¹

It was in the middle of Lent, which is strictly observed in Abyssinia, where the fast lasts longer than the forty days and forty nights of other Churches, as two small fasts have been added to the end of it. Cells had been constructed in the grounds, some of them retreats with leafy canopies of bushes, and some mere shanties of boughs made against walls. Communal meals are cooked and served; the bell rings, and monks can either eat in a Common Room or take their food to their cells. I saw a great many of the monks as I walked freely about the grounds. Most of them were in their cells reading from wonderful old parchment books and psalters. Some of them did not look up, but those who did showed no surprise at the sudden appearance of a European in the midst of their seclusion. Their thoughts were evidently not on this world, and they merely went on reading.

The Memhir or Abbot was a monk who had been there many years. He said, in reply to my enquiries, that it was not customary for them to say where they had come

¹ *A History of Ethiopia*, p. 406.

from, but we heard that he came originally from Tigrai and that he was a eunuch. He was tall and good-looking, with a scholarly face and a calm, commanding demeanour. He has the power to put refractory monks in chains, and we saw the monastery "lock-up" where there was one prisoner with irons round his ankles, a tribesman from the monastery lands who had been convicted of stealing cattle from his neighbours. As the Abbot was one of the most intellectual of the monks we had met, I thought it a good opportunity of learning at last the difference between a church and a *gadam*. Mandaba is a *gadam* and is a good example of my own conception of a monastery; it was the small church that had no monks but was nevertheless called a *gadam* that still puzzled me. I asked the Memhir for his definition, and he replied that a *gadam* was the father and a church the son. I then asked him how it came about that some of the churches which were merely called *Bet Cristian* were larger and even richer and more prosperous than some *gadams*, and I gave examples. He said, "The churches you mention are thriving or have thrived under the patronage of an Emperor or a noble and have become rich and influential thereby. But," he added, "even poor fathers sometimes have rich sons." Evidently the explanation of the small and poor *gadams* that I had come across is that they had once been more prosperous, but as the patronage of their benefactors had been lost they had declined and had become impoverished owing to the gradual loss of their subordinate churches and lands.

Men who wish to become monks enter Mandaba Monastery as probationers and serve the monks. They may eventually be accepted as monks and will then wear the white skull-cap; until then they are called "black-heads".

We adjourned to the library and among the books we examined were *Mashafa Hawi*, or Religious Law; *Af Work*,

or "Mouth of Gold"; *Senkesar*, a Synaxarium; *Sinodos*, or "Acts of the Apostles", with some of the columns of the script illuminated with colour designs; *Paulos*, or "Saint Paul", and *Nabiat*, or "The Prophets". None of these volumes had a date or pictures, but *Tamera Mariam*, or "Miracles of Mary", was well illustrated and contained some good paintings, one being a self-portrait of the painter, named Daksaios; others showed the Virgin Mary giving water to a thirsty dog, and performing various good works. One included a scene showing an animal that was evidently intended for a camel, as it was feeding on the top branches of a date-palm, but it was equally evident that it was drawn by a man who had never seen a camel, or had carried away a very confused impression of one, for it resembled a horse with a hump at the withers and pointed hoofs.

Dirsana Mikael, or "Monograph of Michael", including one of Raphael, had fairly good full-page pictures showing incidents in the life of St. Michael. There were seascapes with ships tossing on the waves, and a quaint view of hell full of devils; a whale was suggested by a lion's head coming out of the water of a rough sea.

We left Mandaba and, keeping close to the shore, passed between it and the mainland and Silasi Island, which lies half a mile out in the lake but has no church on it, and landed on Desait Giyorgis Island, a quarter of a mile from the coast. It is uninhabited but contains a small church in very poor condition. It was once a fortress of the Emperor Bakaffa and is surrounded by a wall 15 feet high made of rock and lime mortar with perpendicular loopholes for rifles every ten feet.

After leaving Desait Giyorgis we continued our journey, rowing a quarter of a mile from land, as sounding showed the depth of water to be 20 feet. Abazai, the ruined palace of Bakaffa, was pointed out on a ridge on the mainland,

but we did not visit it, nor could we go out of our way to see a church named Simana Kahinat Semai which lies at the angle of a deep-cut bay.

We rowed straight across the mouth of the bay, and even in the middle, a mile from land in any direction, the water was only 24 feet deep. This seems to indicate that great depths of water would not be found off the Gorgora coast. Our interests were now centred on the ruined palace of Susenyos, which stands out conspicuously on the top of a hill on the small promontory to the head of which we were steering, and commands a wonderful view of mountain and lake. We were to see it the following day, so we passed it by and went on to Mangai, a small *tankwa* landing-place on Gorgora, where we camped.

Jabara Mariam was a mile to our west, a circular island, covered with trees 50 feet high. The Church of St. Mary is ruined and the island deserted.

On April 13th we went to Galila Island, which lies almost due south. It took two hours of hard rowing to cover the distance. I made soundings at regular intervals all the way. These showed that there was a gradual fall in the lake bottom, and my highest reading was 43 feet, taken at 100 yards from Galila and 3 miles from the mainland. We landed on a shore of big pebbles, and ascended a steep path through high trees leading to the top of the cone-shaped island and the church and monks' houses. Here we were received by the Memhir and the monks. According to my companions, who were quoting from the books in the library, the Church of Iyasus (Jesus) was founded in the reign of Amda Seyon (1314-1344) of Shoa, and was built by Aba Zakarius, his grandson. The building had been burnt by Gran, whose soldiers had crossed the water on planks of wood. The Emperor Sarsa Dengel (1563-1597) had repaired the structure, and the Emperor Fasiladas (1632-1665), who had received part of his educa-

tion at the church, rebuilt it. Many martyrs had died for the faith of their fathers on the island during the persecutions by the Emperor Susenyos, who had himself been converted to the Roman Catholic religion by the Jesuit priest Pedro Paez, and tried by force to make his people accept the Church of Rome.

We found a typical round Abyssinian church, but the red rocks of which the walls are built are well cut and fit closely, and the lines are straight, suggesting that some European help had been enlisted in its erection, although it could not have been the work of the Portuguese priests, who had all been expelled. The doors are massive and the posts are carved with a scroll pattern. Framed pictures by an Abyssinian artist were leaning against the walls. They are not well preserved but the colouring is good. There was a copper-framed drum given to the church by Fasiladas, which had two inscriptions, one in Arabic and one in Giz, cut in the copper, but both were illegible as they were covered by leather thongs. The windows of the Holy of Holies were open scroll-work, and there were pictures of St. Michael and other saints painted on the woodwork of the doors. Some of them were the work of an artist named Aba Gabra Mariam, who had himself recorded the fact. A circle of twelve wooden pillars representing the twelve Apostles surrounds the Holy of Holies. One of the possessions of the church is the dark red plush cloak of Fasiladas, with embroidered sleeves and collar. A bronze bell hung in a small belfry in the grounds; it was well cast, and had a cross and I.H.S. imprinted on it, but there was no inscription. No one could tell me its history, but it seemed to be of European origin.

While we were being shown some of the books, I asked how they had escaped when the church was sacked by Gran, and the explanation given was that they became invisible. The probability is that they were removed to a place of

safety. Of three separate volumes of *Arabitu Wangel*, "the Four Gospels", which we examined, one was written by Aba Zara Yakob, a monk, and was undated, but had good full-page pictures, including a scene in Palestine in which children at Bethlehem were playing Abyssinian hockey, which seems to have been played in Ethiopia from time immemorial. Another volume was written by Gabra Leul, who gave no date. From the third, which announced that it had been sent to Aba Zakarius from Shoa, we translated the following passages: "We start in the Mercy of God, we are writing the seasons of the year. Galila having been ruined by Gran, it [the church] was rebuilt now after forty-nine years, after Sarsa Dengel [1563-1597] had been reigning twenty-seven years, in the period of Saint John, the Year of Mercy, two hundred and forty. The Ark of Galila was founded by the grace of God. She was invisible for forty-nine years; after the church was rebuilt she entered once more and became visible." "At that time Yohannis was Patriarch of Alexandria and he appointed Cristo Dolu as Abuna of Ethiopia." "The man who built the church under the orders of Sarsa Dengel was Azai Berterahail." There were also copies of *Terguami Wangel*, an abbreviated gospel, literally "The Gospel Interpreted", which had no pictures and gave no date, and *Orit*, the Old Testament, a very old and much-worn volume, as well as a Bible printed in Amharic and probably presented by a European Bible Society, published by Richard Watts or Waters (in Amharic script it was difficult to be sure which), the date being 1840. The Memhir remarked that the older monks prefer religious books written in Giz, but more modern monks and priests do not object to Amharic versions. In addition we found a copy of *Haimanot Abo*, which did not seem to be very old, and a *Tamera Mariam*, "Miracles or Monograph of Mary", which had many good illustrations.

The Memhir was an able and intelligent monk, about thirty years old, who talked freely about his monastery. After we had inspected the books he invited me to come to the prayer-house, where the monks gather in the evening to read the Psalms of David and eat bread. We squatted round the walls of the room, and a young deacon offered each of us a small volume of the Psalms written in Giz. The Memhir standing said a short grace, a few verses which he read from a book, and we were served with unleavened bread made from *tef*, a small millet. The usual Abyssinian bread is also made from *tef*, but is leavened or fermented. A small pile of powdered red pepper was placed near each guest, in which to dip the pieces of bread to give it more flavour. The menu consisted of boiled *shimbira* (chick-peas) previously soaked to soften them, with the alternative of chick-peas previously soaked and then slightly roasted. This was the simple meal of which the monks would partake. As it was Lent, no meat or meat fat was used in the cooking. Drink was served in cups made from cow's horn; it was a liquid made from a small sunflower (*nug*) extensively grown as a crop throughout the country to be consumed during the religious fasts. The oil is squeezed out and mixed with water and made slightly hot by the addition of red pepper. After Easter the monks' fare, though always frugal, would be *injera*, *tef* bread made with butter and other animal fat and milk, *wat*, or hashes of meat with red pepper sauce, and the drink would be *tej* or honey-wine, or *talla*, barley beer.

The monastery owns lands on Gorgora and elsewhere on the mainland which are let to tenants who pay rent.

After saying good-bye to our hosts we rowed back to Gorgora, landing on the west of the ridge below Gorgora Palace. Here, by arrangement, our mules were awaiting us and we rode up the hill to the ruins of the palace built by the Portuguese Jesuit priest Pedro Paez for the

Emperor Susenyos in 1614.¹ We have to go back to Paez's own account of it as narrated by Tellez, for no European traveller seems to have visited it since, or at any rate to have left any description of it. Paez records with simplicity that he resolved to build a palace to show the Ethiopians that what the Roman Catholic priests reported of the palaces and monasteries of Europe was not impossible. He goes on to relate how he carried out his stupendous task. Having found a quarry of good white stone, he gave directions for making hammers, mallets, and chisels, handling them himself and teaching the new workmen to square the stones and training the joiners and carpenters. He found no limestone, so instead of lime he used a binding kind of clay. There was a spacious staircase from the lower to the upper floor, and from that another which ascended to the flat roof of the house, round which there was a handsome parapet. The Father put a sort of spring lock upon the door of the stairs that led out upon the top of the house. The Emperor wished to have this altered, as he did not want to carry the key, but Paez answered "Your Majesty may have occasion for it as it is". Some time later three conspirators asked audience of the Emperor with the intention of assassinating him. He received warning of their intention from a woman during the audience, and, while still conversing with the assassins, managed to rise and lead them to the door. He then slipped through it himself and slammed it to, leaving them on the stairs. Paez remarks, with pardonable pride, that the building, more particularly the upper floor, amazed the Abyssinians.

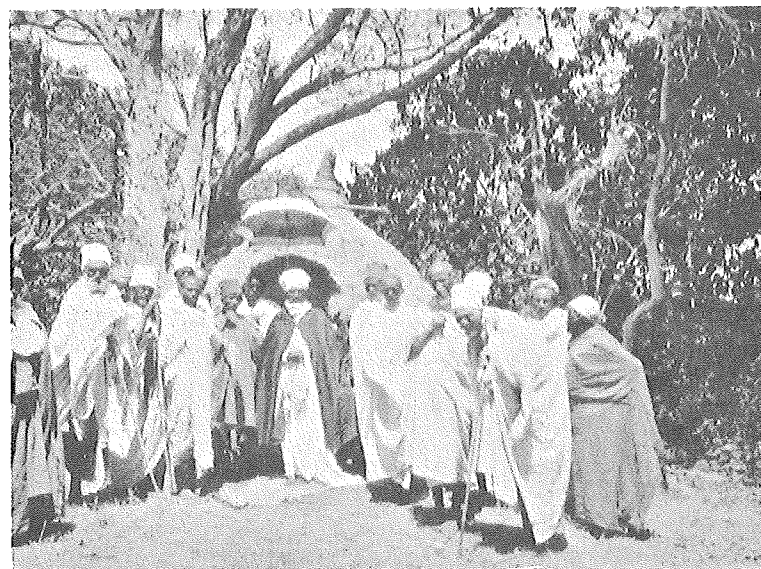
The whole hill-top is occupied by the circular rock walls of small houses, all that remains of the old town once occupied by the Emperor's huge retinue. In the centre rise the walls of the ruined palace, commanding a glorious view of

¹ Tellez, *The Travels of the Jesuits in Ethiopia* (translated into English 1710), p. 206.

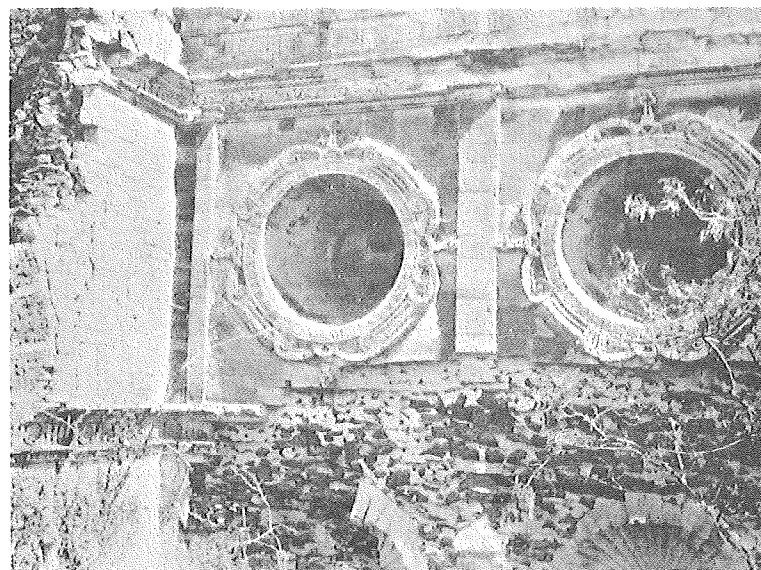
the lake and its bays, over 30 miles of open water to the mountains and hills on the south side of the lake. No human habitation was in sight, and not a sound broke the silence except that of our own footsteps as we clambered over piles of debris, or the neighing of our mules which had been left on the outskirts. Although the palace has not been occupied since the reign of Susenyos, such a complete ruin of substantial buildings seems to suggest that the earthquake which in 1704 destroyed the Portuguese-built palace at Gondar only 20 miles away also threw down most of the roofs of Gorgora.

We passed into a very large courtyard with a fish-pool or rain-water tank inside the walls with a stone gutter-spout draining into it from the roof. Rooms are built along the outside wall. The keyed arches all round show skilled workmanship and many are still standing. On the east side of the court is a high wall of rock, each block of which is shaped, and this formed the main support of the great banquet-hall. The wall is double and is broad enough to carry a stone stairway up its interior. We ascended this and stood on the parapet on the top, some 70 feet above the ground. We did not find the door with the spring lock mentioned in Paez's story. We all stood admiring the beautiful scenery and vied with each other in identifying distant landmarks lying beyond the lake. To the south-west the skyline was cut by Debra Sina Mountain in Achefer 50 miles away; due south we recognised Amadamt peak, 12,000 feet above sea-level and 70 miles away; and to the south-east was Guna Mountain in Bagemdir, which is nearly 14,000 feet above sea-level and 75 miles from Gorgora. A more beautiful prospect it is not possible to imagine.

On the west of the wall are beam-rests that supported the floor of a second story, of which there is no other sign to-day. The eastern part of the main wall forms the side of a magnificently conceived banquet-hall, this wall and part



ABBOT AND MONKS IN THE MONASTERY ON GALILA ISLAND,
LAKE TANA (p. 203)



GORGORA PALACE RUIN, WALL OF THE GREAT HALL

of the arched span of the roof at the south end being all that remains to show its design. The wall is decorated throughout its length by a row of false windows several feet in diameter, carved in rock in rose pattern, with a row of inverted shell-pattern carvings. Considering their long exposure to the weather they are in excellent preservation. All the stone pillars are carved in an infinite variety of patterns.

Tellez also mentions that in 1621 Paez built a stately church of whole square stones, with a curious arch with several complete columns over the high altar, a steeple for the bells, a winding staircase and a flat roof enclosed with a parapet, whence there was a delightful prospect of the lake and plains of Dembea which the Emperor once came two days' journey to see. It is no great surprise to read in the next paragraph that in 1622 Susenyos professed the Latin faith. Paez died soon after at Gorgora, having spent nineteen years in this mission, leaving behind him a record of marvellous achievement, and as Tellez remarks, "an ample relation of all the affairs of Ethiopia".

To my great regret I was unable to spare the time to go and look for the chapel, and no other traveller in Abyssinia seems to have left any account of it although many have visited and described the ruins of the palaces at Gondar.

There should be several Portuguese ruins in Gorgora, and I should like to have been able to spare a few days to explore and search for more of them, as it is a part of Abyssinia that is very little known.

We returned to Mangai camp and continued our journey by *tankwa* next morning, and passing on our left a small island, Bohiya, that contained no church, travelled along the west coast of Gorgora and turned into a small bay, where we camped at the inside bend on a water-grass plain one mile wide lying between forested hills 200 feet high, at a place called Dabaza, where there is a Waito as well as

an Amhara village. The peasants told us of some caves at the north side of Dabaza Bay, and taking two hurricane lamps and stout sticks to keep off hyenas, we set forth to examine them. We found a low hill ridge on the side of which, well concealed in trees and overgrown with brambles, is the entrance to the caves. I had not got farther than the first chamber before I realised by the pick-marks on the walls that we were in an enormous quarry from which the Portuguese missionaries had got the stone to build the palace for Susenyos; gallery led out of gallery, and a large part of the end of the hill ridge had been hollowed out. The galleries were from six to eight feet high, so that men could walk about in them comfortably, and we eventually came to daylight again at an entrance on the north or opposite side of the hill, close to the water. It was doubtless here that the shaped rock was loaded on to *tankwas* and conveyed to the palace by water. I brought samples of the hewn rock, which have been identified as silicified tuff.

It was pitch-dark in the interior of the caves, except for the glimmer from the lamps, and the lights disturbed hundreds of thousands of bats which flew from one chamber to another and into our faces, so that there was much commotion among the men who had accompanied us, who all hit out wildly with their sticks. We found evidence of the presence of hyenas, and although none appeared we expected to meet one rushing out at every new chamber we entered, and had our sticks ready. Several holes had been scratched out in the walls, and the hyenas had evidently dug independent earths for their own accommodation. The floor of one of the corridors was strewn with the huge bones of a hippopotamus, the hyenas' share of a Waito kill and feast.

On the hill above the caves there was the ruin of a circular building built of rock, with arched windows,

which must have been the residence of the Portuguese Jesuits while they were working at the quarry, and farther along the hill-top we came to a simple and undecorated square building, also in ruins, which the peasants called Mikael Church. The distance from the caves to the palace of Susenyos would only be a few miles by land, and my men who had brought the mule caravan that way said that the track lay over some steep and rocky hill paths.

In the evening I walked back to the hill near the caves with Turuna Habasha, and took a twelve-bore shot-gun, intending to shoot some guinea-fowl for the pot. Soon after sunset we realised by the snapping of a twig in the distance that we were not alone, and hiding behind a bush we waited and saw a large hyena coming from the direction of the cave entrance. It was followed by another, and I was amazed to see a procession of hyenas passing us at a distance of thirty yards and going into the forest, until, when the thirteenth was opposite me, although I could not hope to kill the repulsive creature, I let him have a broadside of No. 6 shot that had been intended for the guinea-fowl. I saw no more of the twelve that had gone ahead, but the thirteenth, with an angry grunt, turned back towards the cave, cannoning into the fourteenth and several others that were coming on behind. Plunging and crashing among the bushes continued for some time, and it sounded as if at least a dozen more hyenas would have passed if I had not disturbed them.

A night rarely passes in any camp in Abyssinia without the eerie whoop of the Spotted Hyena being heard, but the animals are seldom seen. They often attempted to get a mule or donkey from the picket, although I always had two men on guard all night. At Dabaza not a sound or sign of hyenas disturbed me. It is not an unusual sight to see a cow or donkey with scars or an open wound on the flank where the terrible jaws of the hyena have torn a

piece of living flesh from the animal, and it is quite possible that this gave rise to the story brought back by James Bruce that the Abyssinians of his day cut pieces of the living flesh from cows at their feasts and then allowed the place to heal, a tale that does not seem to have been corroborated by any other traveller.

CHAPTER XVI

LAKE TANA: THE LAST STAGE

April 15-24, 1933

NAGADRAS AYANA, the head of my Waito sailors, now decided that we could go no farther with our *tankwas* as they were, and said that they must all three go into dock if we were to complete the journey round the lake. He could not obtain new papyrus, but he proposed to pull all the reed bundles to pieces, dry them in the sun and rebuild the rafts, a process that would take several days.

We had been hearing rumours of an "Isat Gamorra" (Fire of Gomorrah), the Amharic for volcano, at Chilga, which seemed from the accounts to have been active, and as it was about a day's journey north of Gorgora, I decided to see for myself how much truth there was in the story. We left the Waitos with the *tankwas* at Dabaza, started on April 15th with the mule caravan, and arrived in Chilga on the 16th. Some delay had been caused while we tried to find a local guide to show us the way. They are naturally suspicious of Europeans and the foreigner's interest in strange phenomena, and one man, when we had eventually won his confidence, boasted that several travellers who had wanted to see the "fire" had been shown the wrong place. However, with a little patience we induced him to show us the way and eventually arrived on the left bank of a small tributary of the Atbara River, which is called the Goang in Abyssinia. When we were about a mile east of Chilga village the presence of the Isat Gamorra was made known by a smell of sulphuretted hydrogen which pervaded the early morning atmosphere,

and the "volcano" proved to be a fumarole at the top of the steep left bank of the small tributary. Smoke issues all day, though it is more visible early in the morning, from a deep fissure in white rock of a kind that looks like chalk but has been identified as white and pale-grey vitric tuff, with similar material forming plates four millimetres thick, resembling pieces of plaster that have fallen from a ceiling. Considerable heat can be felt when one is close to the opening, and rocks beside the fissure were slightly blackened and too hot to hold with the hand. The main escape, which seems to be smoke and steam with a strong smell of sulphur, comes from a fissure 6 inches wide and 3 feet long, and a few escapes were also smoking on each side, the whole smoke area being 8 yards long. The fissure itself extended far beyond the smoke area, and a large rock-fall from the cliff side 50 feet high seemed imminent. I had been told that there were ashes lying round, but we saw none.

In the same river-bed is a black seam, about a foot thick, forming a strange contrast to the strata of white rock in which it is laid horizontally. The specimens of black rock which I took have been identified in London as lignite or brown coal.

This recalled to my mind an incident that had occurred several years before, during an interview at Debra Tabor with Ras Gugsa Wolye, Governor of Bagemdir. A mysterious parcel was produced from the folds of a cloak by a confidential servant, and when it was unwrapped revealed a collection of black rock. I have no doubt now, although I did not know it then, that it had been brought from this area, as the Ras would not tell me where it came from. I looked up suddenly and found him watching my face closely. I am afraid that if he expected me to exclaim at the sight of the rock and tell him that he had the evidence of untold wealth before him he was disappointed. I had to

explain that I was no geologist, but I offered to have it identified if he would give me a small piece. He had the rock carefully wrapped up and taken away and said that he would send some to my tent before I left, but did not do so.

The peasants living near the fumarole told us that the volume of smoke issuing varies considerably from year to year, and, as might be expected, it is always more in evidence in the rainy season. They spoke of a similar fumarole near a church called Kowa Silasi, 7 miles south of Chilga.

These two fumaroles seem to be the only remaining signs of volcanic activity left in North-West Abyssinia, although the whole country is volcanic and lava-cores and extinct craters are seen everywhere on the high plateau. It is this that lends more than usual interest to Mr Nesbitt's discovery of active volcanoes in the Danakil Desert near the Red Sea in 1928. Hot and boiling springs are frequently seen, usually on the escarpment below the high plateau, and Abyssinians make long and regular pilgrimages to bathe in them as a cure for rheumatism and many other ailments.

We now returned to Dabaza and found that the Waitos had remodelled the *tankwas*, so we were able to embark and, leaving the mountainous district of Gorgora, continue our voyage on April 19th along a flatter and less indented shore.

The mouth of the Aba Ganan River was passed in the first bay. We had crossed it on our way to and from Chilga and found that it had ceased to flow, and even the pools had dried up. The grass-plains to the east of the Sar Wuha River, the next estuary that was passed, are still famous as the base camp used by King John IV in his campaign against the Mahdi, ending with his defeat of the Dervishes at Gallabat in 1889, and his tragic death by a bullet in the hour of his victory. I have spoken with men who were in the battle, and it appears that the stampede of the Abys-

sinians, when they found that their King had been killed, turned into a complete rout, and the body of the King fell into the hands of the Dervishes. It is believed that his head was taken to the Mahdi at Omdurman, and during recent years a request was made to the British Government that it should be returned to Abyssinia if its whereabouts were known, but no trace of it could be found in the Sudan. A small church was founded about 1931, close to the present Sudan frontier at Gallabat, at the place where, according to the evidence of old Abyssinian warriors who were with him, the Emperor John fell.

We passed the mouth of the Kema River, which like all the rivers on the north shore of the lake, except the Magach, only flows in the rainy season.

Delgi, where we camped, is a small village by the lake shore and has an unimportant church, Delgi Mariam. Delgi has some local fame as a *tankwa* port. Coffee is brought by *tankwa* from Korata and Zegi, and is unloaded there to go on donkeys by caravan through Berberay Kura to Gallabat for export to the Sudan, where the good flavour of the Abyssinian coffee is appreciated and where it fetches a higher price than coffee imported from overseas.

On April 20th we left Delgi, and turning the north-west corner of the lake, camped on the shore opposite the village and church of Maskala Cristos, or the Cross of Christ, which is perched on a small hill a mile from the lake. On the shore west of Delgi we encountered banks of sand washed up by the waves, a peculiar formation that is difficult to explain, as there are no river estuaries to account for it. The *tankwas* were gently rocked by a swell which the Waitos called a *gumbali*; the lake was calm and looked like oil, but waves 6 inches high and 18 feet apart, and coming from the direction of the centre of the lake, were stirring the surface. It was possibly the effect of a distant storm on the south coast 40 miles away, although we in the

north had passed the night without even a light breeze.

We were able to cover the greater part of the west coast during the day. There were no churches to be visited, as they had all been ruined by the Dervishes during their frequent invasions. These districts lie on the nearest side of the lake to the Sudan and had borne the brunt of the attack by the Muhammadan hordes, who had left very little of the buildings standing. We rounded the narrow peninsula of Kidane Mehret, meaning "The Covenant of Mercy". The church had been sacked by the Dervishes and was deserted, and the point where once it stood held nothing but tumbled rock-cubes and trees. We went by a small nameless rock island half a mile out in the lake, and also the tree-clad and deserted Bata Island, whose church had shared the same fate as the rest. We kept about a quarter of a mile from land and were able to punt in about four feet of water the whole day.

No rivers of any size flow into the lake on the west coast, as the water-divide is only six miles away on a ridge 600 feet above the lake. We passed the mouth of the Linquatit River, and soon after entered the bay of Azo Bahr, meaning "Crocodile Sea", a flight of fancy on the part of the people who named it, for it is well known that no crocodiles inhabit the lake. In the bay we went ashore for a short while to land and say good-bye to Gerazmatch Ababa and his men. The Kena River which enters the lake here was the administrative boundary between the governorship of Ras Kasa and that of Dejazmatch Masfin, Governor of the small province of Alafa. As Gerazmatch Ababa had been sent by Dejazmatch Wand Bewasan, Governor of Bagemdir and Ras Kasa's son and deputy, he would not set foot on the Alafa bank of the dry bed of the Kena River although I tried hard to persuade him to do so, chaffing him and telling him that it was all Abyssinian territory and not a foreign country. The rigid observance of administrative

boundaries within Abyssinia itself has done a great deal to weaken the control of the central Government. Each province has been considered by the officials as a separate compartment; none of the authorities of another province has the right to enter, whether in pursuit of a criminal or for any other purpose. This is naturally much to the advantage of highwaymen, for example, who carry out their operations in forests near the provincial boundaries. When a Government force is sent to deal with them, the outlaw bands, who have no respect for frontiers, retreat over the line, knowing full well that they cannot be followed, and that by the time the police from the new province arrive, the first force will have gone away, and they can escape by recrossing the boundary. The same principle explains why few Abyssinians had been completely round Lake Tana—in fact I could find none who had done so. The lake shore has from the earliest times been divided between at least three governorships, and still is; men know the country of their own local ruler, but even a short journey beyond it is looked on as an adventure, and when they pass the boundary their attitude of mind is that of a trespasser.

Gerazmatch Ababa had been my constant companion for the last five weeks. He had been instructed by Dejazmatch Wand Bewasan to help me and show me all there was of interest on the islands and in the monasteries, and had done his very best for me. I was grateful to the Dejazmatch for having selected him, as he had been of the greatest assistance to me. He mounted his mule to return to his home on the east coast, and we embarked on the *tankwas*.

On the southern extremity of Azo Bahr Bay, on the end of a ridge, we passed the ruins of a masonry church called Seha Debra. It had been visited by the Dervishes, and only the shell remained.

The Kena River or Seha Kena has its origin about

six miles away on the western water-divide, and is little more than a rain-torrent which is dry for most of the year. There are two Kena Rivers rising together and going off in opposite directions, which is unique in my experience of the naming of rivers. The western Kena, which is by far the bigger, was previously unknown, and the country west of Lake Tana through which it flows was unmapped. A few years previously I had taken the opportunity of charting its course up to the Sudan frontier, where it is well known under the name of the Rahad. The Kena is joined in the lowland forests by an equally strong-flowing tributary called the Jira, after which they continue together under the name of the Shinfa. The Kena and Shinfa pass through uninhabited forest for most of their journey and are famous for their big game, among which, from my own experience, highwaymen may be included.

An island called Bohit lay two miles out in the lake as we passed down the coast—a bare uninhabited cone about a quarter of a mile in diameter and 50 feet high, supporting one large fig-tree. The presence of an island seemed to confirm the evidence of our *tankwa* poles, which were showing a depth of only four feet of water, as to the unexpected shallowness of the lake.

At a small district called Balas, where we camped on a water-grass plain surrounded by forest-clad hills, the shelving shore forms a *tankwa* port. *Tankwas* bringing coffee from Zegi and Korata unload their cargoes, and the merchants place the coffee in smaller skin bags and hire donkeys from the highlands of Alafa to take them to Gallabat by the Sarako route. There were no villages in sight at Balas—the people prefer to live on the hills away from mosquitoes and flies—but a Waito hamlet was close to the shore, a mile or so south, and several of the young men came to our camp bringing hippopotamus teeth for sale.

On April 22nd we rowed over the big bay in the south-west corner of the lake across four miles of open water to Kunzela, a small district on the south shore. I knew the shore of the big bay well, and had spent many nights on the edge of the lake on previous journeys to Gallabat and the north; it is one of the most delightful camp sites that can be imagined, and is called Zauday Grar. There is no village or any sign of the man Zauday after whom it is named, but the *grar* trees, sturdy giants of the *Acacia abyssinica*, spread wide their branches, making a shady canopy over the tents. Between the forest and the lake is a water-grass fringe covered with sleek cattle that find the grazing to their liking. Beyond this lies the blue water of the lake, and to the north and south hills covered with trees run down to the water's edge. On my first visit to Zauday Grar a school of seven hippopotami were lying out in the lake with their gigantic heads appearing and disappearing, and evidently watching us with anxiety. On my second visit I witnessed the shooting of one of the poor beasts by a Waito hunting party in *tankwas*, and on the present occasion we saw no sign of hippos, so I fear they have been exterminated.

I sounded the depth at regular intervals all across the bay and found that the lake bottom gradually fell towards the middle and as gradually rose on the other side. The deepest reading obtained was 21 feet 10 inches, and as this was several miles from land it seemed astonishingly shallow. I had expected to find, and had come prepared to deal with, much greater depths of water.

A small river called Tukur Waha enters the lake in Zauday Grar Bay. It is an inconspicuous stream but has a claim to distinction as being the boundary of the big province of Gojjam. The neighbourhood itself is remarkable as being the area where the watershed of the lake comes nearest to the lake shore. It is, in fact, only about five

miles away, and the suggestion has been made that it would be possible to tap the lake by a tunnel through the hills and drain it here. If so, the water would gravitate into the basin of the Balas River and join the Blue Nile not very far on the Abyssinian side of the Sudan frontier. It was never made very clear, by the author of the scheme, what benefit, if any, would be derived from such an expensive undertaking.

On touching the south shore of the lake we travelled eastward and kept close along the banks, which are lined with exposed cubes of scoriaceous lava. Giyorgis Church is on a ridge overlooking the lake in Kunzela parish, but from the accounts of it I obtained there was nothing in it of particular interest, so we did not stop but went on to camp in Jigar beside Kadus Jigar Church, built on a small afforested promontory. The priest in charge told us that Jigar was a martyr who had defended the Child Christ when Herod was searching for him, and that he was a Syrian, and he added that the story was to be found in *Nagara Mariam*, or the "Monograph of Mary". Jigar is one of the saints to whom I have not been able to trace any reference in literature. The church was built by Yetege Mentewab, wife of the Emperor Bakaffa.

On April 23rd I climbed on to the deck of the *tankwa* for the last time to complete my circuit of the lake, although I did not expect to find anything of interest in the few miles of shore-line that remained to be seen. We punted along the shore of the next bay, passing the estuary of the Murfi River, a rain-torrent which only runs during the rainy season and for a short while afterwards, and on the far side of the bay we arrived at the afforested point of Mokal which I had visited on the previous December 1st, the day of our adventurous return journey in the dark round the Small Abbai estuary. I had accomplished my object and had seen the whole of Lake Tana shore from

the water, which no traveller had done before. A compass traverse of its bays and inlets had been made, and the first complete sketch-map of them was in my notebook. I had landed on the islands and had made the acquaintance of the monks and priests, and at their invitation had seen the inside of all the sacred buildings and ruins and had learned at first hand much of their religious life, beliefs, and history. The journey had added many species to my collection of birds which could not have been obtained otherwise. I returned to camp filled with satisfaction at the reflection that at last the lake and its islands had yielded some of their mysteries to me.

That night I paid off the Waito crew and gave them the three *tankwas*. They took two and abandoned one as useless. They were afraid of meeting anyone while they had their wages in silver on them, lest the money should be wrested from them on some pretext or other, so I was a party to the conspiracy when they arranged not to wait to see me start in the morning. They departed silently as soon as it got dark, intending to strike out to sea and row all night, hoping by dawn to be in the neighbourhood of Dek Island. Here they would swing round, without approaching the shore, to reach their village near Zegi, where they would land among friends.

Nagadras Ayana and his Waitos had, during our several months' acquaintance, gained my unqualified admiration. They never complained of long hours or hard work, and were always willing, obliging, and cheerful. Wages had been agreed upon before starting, and there had been no grumbling. They were the keenest of sportsmen. I often shot a Spur-winged Goose for them in exchange for the fish they netted for us. On one occasion I merely winged a big goose, which could still swim and dive and did so with great agility. Two Waitos manned the *marocha* and went off to pick it up, and a most exciting chase com-

menced. Every time the men approached the goose it dived, sometimes coming up a hundred yards in front of them and sometimes fifty yards behind. This went on for an hour, we meanwhile continuing our course on the big *tankwas* till the two men were left some way behind. The hunters then tried different tactics. One man standing up, balancing his long bamboo pole on his extended arm, awaited the next appearance of the goose, and as soon as its head was seen above the surface of the water he threw the pole like a spear. It just missed the goose, which dived again. The Waito had put such energy into his thrust that he lost his balance and fell flat on the water, upsetting the *marocha* and all its contents, such as spare poles and fishing-nets, as well as the other Waito sitting behind, who went over the other side. This performance was greeted with shouts of laughter from my men and also from the Waitos who were with us, until they remembered that there was a rifle in the *marocha*. They were serious for a moment, but laughter broke out again when we saw the man come up clasping the precious rifle in one arm. The hunters spent some time in collecting their floating gear and scrambled back into their unstable craft, which in itself was no easy feat. I remarked to Nagadras Ayana, "Your men will now give up the chase", and he replied, in a low and serious tone, "No, they will not give in until they have caught the bird, even if it takes them all day". In half an hour they were small objects in the distance, but the goose eventually led them towards us and it was caught close to our camp.

On April 24th we left the lake shore, travelling once more by mule caravan, and reached Dangila in three days.

CHAPTER XVII

BAHRDAR GIYORGIS TO TISISAT FALLS AND THE FIRST BLUE NILE BRIDGE

May 10-11, 1926

WE now have to return to the Big Abbai or Blue Nile, where we left the water flowing over the Lake Tana outlet at Chara Chara, and follow it to its junction with the White Nile at Khartoum, a journey of about 1000 miles. As I have already explained, my expeditions which followed the river were undertaken before the *tankwa* journey round Lake Tana, but for the purposes of this record we are going downstream with the flow of the water and are not keeping strictly to dates in their correct sequence. The Big Abbai reconnaissance of 1927 began from the falls of Tisisat, but I will first describe the course of the river down to that point as previously covered in the spring of 1926, when on my first visit to Bahrdar Giyorgis I took the opportunity of making myself acquainted with the details of the first eighteen miles of the Blue Nile.

The first trade caravan crossing of the Blue Nile is by ferry at Kamforo, near Bahrdar Giyorgis, a small lagoon of deep water below the Kamforo rapids a mile downstream from Chara Chara. Kamforo rapids may well become world-famous in the future, for this is the site selected for the regulator in the latest plans for the control of the lake. In the rainy season trade caravans cross by *tankwa* below the rapids, but during the low-water season they ford the river at Igr Bar, four miles downstream. The proposals for the control works include a permanent roadway on the top of the regulator, which will become a busy

artery for motor traffic coming and going to and from Debra Tabor on one side, and Addis Ababa and the Sudan on the other side. It is not easy to visualise the coming transformation, for I can only see the river there as a tumbling cataract coming over between boulders, the water falling into a quiet lagoon inhabited by Goliath Herons, White Egrets, and at least one crocodile, an area of solitude surrounded by swamps covered with the tall and graceful papyrus. The Big Abbai hugs volcanic hills rising to 1000 to 2000 feet on its left bank all the way to Tisisat. Hills of the same height are not so close to the river on the right bank, for there is a valley a few miles wide with much scoriaceous lava rock and some cotton soil, and the surface is level on the whole. The track follows the right bank of the Big Abbai, never more than a mile away and often only a few hundred yards from it. The water is more often heard than seen, for it is an unending series of cataracts and rapids of which the clamour can be heard for a long distance. The banks are lined with an almost impenetrable screen of thorn-bushes, the branches of which overhang the water, so that the only way to obtain even a restricted view of the river up and down stream was by forcing one's way at intervals through the undergrowth.

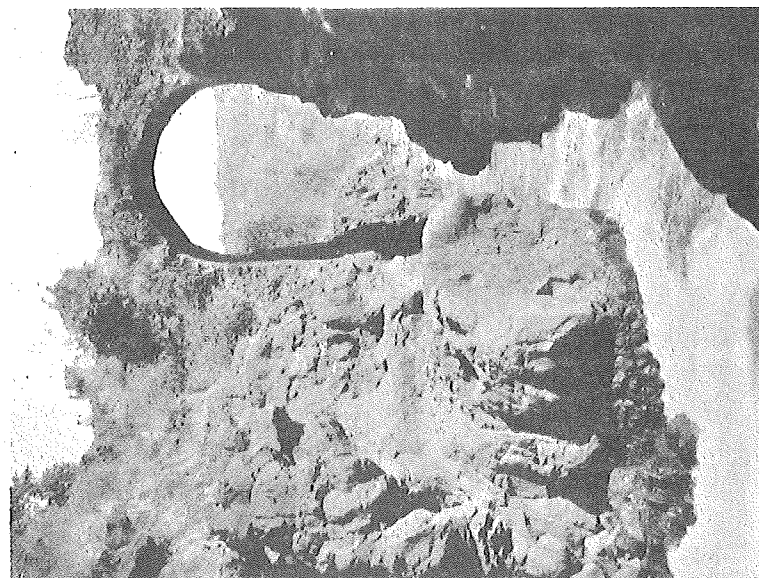
Ten miles below Bahrdar Giyorgis we crossed the Andasa River, the first right-bank tributary. On May 11th, close to its junction with the Big Abbai, the water was 30 feet broad and one foot deep, with a steady flow. It rises in the foothills of the Amadamit Mountains. Two more streams joined the Big Abbai right bank before Tisisat was reached; both were unimportant but can be described as perennial, as they were just flowing on May 11th, which is at the end of the dry season. The latter of these two, which we crossed one and a half miles from Tisisat, is called the Tanaba.

The left-bank tributaries are rain-torrents from ad-

jacent hills, so they do not carry much water. Beda Wunz was the only one of these with even a slight flow on March 26th, 1933, the date when I first found the opportunity to travel from Tisisat to the lake by the left-bank track. It was disappointing, for this road keeps far from the Big Abbai, and no views of the river were obtainable.

Two miles upstream of Tisisat the Big Abbai goes over a fall of 20 feet, dropping into a lagoon called Gumari Waha or Hippopotamus Water. This gives, however, scarcely a hint of the splendid spectacle awaiting one so near at hand at the Tisisat Falls.

The word Tisisat is derived from the Amharic words for "Smoke of Fire", the name coming from the resemblance which the mist rising from the big fall bears to smoke, especially in the early morning, when it is visible for a long distance. Very little of the falls can be seen from the right bank of the river, as the banks are covered with tall forest trees that obscure the views, but on the left bank there is a hill that provides a natural grandstand. To get there we had to go a mile downstream and cross the Big Abbai at the First Nile Bridge. This meant crossing from Damot, a sub-province of Gojjam on the right bank, to Bagemdir province on the left bank, the river being the boundary. In the year of which I am writing Bagemdir was governed by Ras Gugsa Wolye, and Damot was under Ras Hailu, and it was necessary to have Ras Hailu's written permission to see the right bank, and another letter from Ras Gugsa authorising one to get the left-bank view. I was met at the bridge by armed bands of Customs officials, the Gojjam men at their end and the Bagemdir men at the other, and again went through the ancient ceremonial of cutting the cloth, which I have already described. Then, from the hill on the Bagemdir side, the full extent of what may without exaggeration be described as one of the most beautiful waterfalls in the world was spread like a panorama



FIRST BLUE NILE BRIDGE, JANUARY 4TH, 1927
The entire volume of water from Tisisat Falls is passing through this narrow gully



TISISAT FALLS FROM THE LEFT BANK,
JANUARY 6TH, 1927

before us (*see* Frontispiece). The falls are formed by a barrier of lava rock running due north and south at right angles to and across the river's course, with a cliff-face on the downstream side, giving a sheer fall of 150 feet into a narrow gully which is the bed of a small tributary, the Alata, which comes in on the left bank and, picking up the huge volume of water that is rushing over the falls, carries it on at right angles to its previous direction of flow and parallel with the cliff-face. At the top of the falls the lava barrier banks back the river upstream, creating a deep lagoon nearly a mile long and 400 yards broad, in which at the time of my visit there were five hippopotami. The banks of the lagoon are fringed by a forest of big trees. Crocodiles are not much in evidence but must frequent it and can evidently breed there, as I shot a young one two feet long in the shallows near the bank.

There are four separate falls along the precipice, in all about 600 yards wide. Starting from the right bank, the first fall, which is close to the bank, is the highest of the four, as it takes the plunge into the gully in one leap of 150 feet. The second fall is divided from it by a tree-clad mound of rock. The third, in the centre of the river, includes three separate cascades and is divided by a bush-covered rock mound from the fourth or main fall, which extends from near the centre of the precipice up to the left bank of the river. This has one fine cascade that carries most of the water in the dry season, but when the full extent of the main fall is discharging it is a truly grand and awe-inspiring spectacle. The main fall drops first to a shelf 100 feet below the top, and then descends the 50 feet into the gully.

On May 11th, 1926, the Big Abbai being at its lowest level, it was possible to gain the middle shelf by climbing down the cliffs on the right bank. We crossed the first fall on the top, leaping from rock to rock, and then descended the cliff, having to hang on to creepers several times to let

ourselves down the sheer rock faces. On one very narrow sill one of my Sudanese policemen, Ombashi Saleh, who was following just behind me, steadying himself as best he could, caught hold of the tail of a half-grown python, thinking it was part of the exposed tree-root in which it was sleeping. The man nearly toppled over with fright when he realised what it was, and bumped heavily into me. We had little room for manœuvring there, so the position was somewhat ticklish. Luckily our Abyssinian guide who was behind us stunned the snake with a blow from his long stick, which is an essential part of every man's equipment. We then beat it on the head until it was to all appearances dead, and as a *coup de grâce* gave it a jerk into the air, whence it fell thirty feet on to the rocks below and lay still. It must have crawled away afterwards, for there was no sign of it when we eventually climbed down there, and we realised that its very convincing pose of death had been feigned. Pythons are not common, since they are easily killed with rifles, and only survive in unpopulated districts such as reed-beds on inaccessible islands and on the river-banks in the uninhabited lowland forests.

There was a cavern at the back of the intervening falls behind which we passed in comparative dryness, except for the fine spray, to arrive on the shelf beside and below the main fall, where the thunder of the water was deafening. Although I have been to Tisisat several times since then, it has always been earlier in the year and there has been too much water to allow the shelf to be reached. The shelf, like the cliff, was composed of volcanic rock, and the narrow gully in which the water goes away is in solid rock of the same description. A specimen of rock from the top of the fall has been identified as basalt, and a softer stratum 60 feet thick underlying the basalt was tuff with numerous lapilli of obsidian. The falls would provide an excellent site for a power station for electricity, but at

present there is no demand for the current, and it would have to be conveyed 180 miles to reach Addis Ababa. Should a scheme for harnessing the water ever be proposed it is to be hoped that early steps will be taken to ensure that the design of the works does not disfigure the beauty of the landscape and the noble falls.

I set up the theodolite in the evening and took sets of north and south stars, and obtained the correct latitude of Tisisat, but the sets of east and west stars I observed at the same time for longitude were not satisfactory. They depended on a pocket chronometer I was carrying, and, when I eventually arrived on a ship on my way to England and could check the instrument by wireless time signals, it was found that its rate of losing had not been regular, so that the exact Greenwich Mean Time of the observation could not be calculated. It was possible to accept the latitude, as the same degree of accuracy in time is not necessary in its computation.

Below the falls the Big Abbai enters a narrow V-shaped ravine, with sides 150 feet high, 150 feet wide across the top and 20 feet across at the bottom, and from this strange canyon among mountains it does not escape again until it emerges among granite hills some 300 miles downstream. As far as the landscape is concerned the river completely disappears from view at this point. Much the same conditions prevail a mile lower down, where the Emperor Fasiladas, taking advantage of the narrowness of the channel, built a masonry bridge spanning the gully in the bottom of the ravine.

This is the First Blue Nile Bridge, usually referred to locally as Dildi (the Amharic word for bridge). It has been called the Portuguese bridge, but Father Lobo places it beyond all doubt that it was built by Fasiladas, as local tradition says, after the Portuguese priests had been expelled from the country. In describing the river-banks

below the falls he says: "They are so near each other that in my time a bridge of beams on which the whole imperial army passed was laid over them. Sultan Segued (Fasiladas) hath since built here a bridge of one arch in the same place, for which purpose he procured masons from India."¹

As the Portuguese artisans and soldiers remained in Abyssinia after the priests had been expelled, it is nevertheless probable that the bridge is the result of Portuguese workmanship, which its construction certainly suggests. It is built of rock and lime mortar, and although the structure is in need of repair it is still a main artery for mule caravans.

The main arch of the bridge spans the low-water channel, which is a narrow trough cut in the bottom of the V-shaped ravine and has smooth perpendicular sides. It is cut in solid lava by the action of the river. This erosion is facilitated by the formation of numerous pot-holes, mostly the size of a large cauldron, which they much resemble, worn in the lava by pebbles rotated by the water, two or three of which are found in each of the circular cavities. The pot-holes are to be seen at all stages of formation, from a slight depression on the lava surface to the most advanced cavity in which the side has been worn away. It is not very obvious to the lay mind why these pebbles should stay on a flat surface and revolve instead of being swept on by the rushing water. A few yards above the arch the trough is only 7 feet wide, and according to a local legend a chief, during a local war, jumped across it, killed a man in the enemy camp, and jumped back. This daring feat was reported to the Emperor, who sent for the chief and rewarded him with the rank of Fitaurari. The feat is not difficult from left bank to right,

¹ M. Le Grand, *A Voyage to Abyssinia by Father Jerome Lobo, a Portuguese Jesuit*. From the French, 1735. Lobo himself had been sold as a slave in the beginning of the reign of Fasiladas and was eventually ransomed and returned to Portugal in 1673, according to Tellez.

but in the reverse direction it is not easy, as it entails a rise and a landing on the smooth surface of a round boulder. A slip would mean certain death in the rush of water below, going by at a speed which I estimated at 12 miles an hour, with neither foot-hold nor hand-hold on the wall-like sides.

I stood amazed to think that the whole volume of water that I had seen above passing through the lagoon and over the falls could possibly be condensed into this narrow chute, even allowing for the extra pace of the flow. The depth could not be gauged, but it is obviously considerable. When the river rises in the rains it is 50 yards wider and takes a course under the bridge through an extra arch provided for that purpose, and there are three smaller arches to take exceptionally high floods.

Below the bridge the river continues in the trough and goes out of sight round a corner. Beyond this no one had yet followed the banks of the Big Abbai, and it was only known at a few fords where main caravan routes, sometimes 100 miles apart, crossed the canyon.

I had to return to Bahrdar Giyorgis and continue my official duties, for Ras Gugsa had sent an escort to accompany me to Debra Tabor to make my State call, and a messenger arrived to say they were awaiting me on the Bagemdir bank of the river there. I therefore crossed the Big Abbai at Igr Bar ford, to be greeted on the bank by a troop of cavalry and a fanfare of trumpets, and for the next few months my time was taken up with visits to chiefs in different parts of the country, until the rainy season put an end to my travels and I returned to Dangila to await the falling of the rivers.

During all the mediaeval pageantry and ceremonial that was part of my duties the plans for the attempt to see the rest of the Blue Nile were being pushed on, and by the time December arrived, the month in which it seemed most favourable to begin the journey, we were ready to start.

CHAPTER XVIII

THE FIRST BLUE NILE RECONNAISSANCE: FIRST BLUE NILE BRIDGE TO SECOND BLUE NILE BRIDGE

December 28, 1926-January 17, 1927

LEAVING Dangila Consulate on December 28th, 1926, I set out to try my fortune in the Blue Nile Valley. It is unwise to attempt a long journey on the first day, as there are always a few necessary items that the men have forgotten, and an early halt gives them a chance to run home to retrieve them, and allows them to readjust and balance the loads for the benefit of the mules.

We were to go direct to Tisisat and the way lay through Dangila, a village of a hundred huts three miles west of the Consulate. Its sole claim to fame rests on its market, held on Mondays on a bare hill-top near the village, and more particularly on its position as a meeting-place of caravan routes radiating north, south, east, and west.

We camped a few miles beyond the market, and on this occasion it was not what the men had forgotten that took up our time, but what they had remembered, for we had to relieve the mules by returning several loads of surplus kit and food.

On the following day we passed along the left bank of the Ashar River, a big tributary of the Small Abbai, and admired picturesque waterfalls where the river takes a leap of twenty feet off cliffs of lava. The Ashar puzzled me considerably at first, as it was not shown on any maps, but I eventually discovered that it had been mistaken for the Small Abbai, with which it unites a mile downstream. After fording the Small Abbai at Dib Kan we were soon

passing over lava country, where the upper surface breaks into cubes like bricks of pumice-stone. These become loose and piles of them form ridges in the forest that make travelling rough and uncomfortable for mules and men. It was like marching hour after hour through clinkers.

On the third day I made my first acquaintance with the two lakes Kurt Bahr and Dem Bahr. They are close together, about a mile in diameter, and are obviously formed in depressions on a lava field—lava blocks instead of mud can be seen on the bottom through the clear water. My note-book records my impression that there was no outlet, but this was wrong, for, as I have mentioned elsewhere, when I passed Kurt Bahr several years later a local peasant was able to convince me that the lake outfall flows away underground and is the source of the Imfraz river.

This district is all part of the same vast lava-field that reaches to Lake Tana, where it breaks up into the huge blocks of scoriaceous lava that form the south shore. A few volcanic cones rear their heads several hundred feet above the plain and afford conspicuous landmarks that are visible even from distant provinces. Adbara was one of them that could be seen several miles to the south of our road, and farther east there is another called Abola Negus, which is an outstanding feature of the landscape. The latter has for a background the wooded slopes of Amadamit, a mountain range with peaks up to 11,000 feet above sea-level, and behind these the great mass of the Chokai range, considerably higher, completes a very beautiful picture of highland scenery.

Passing the village of Feraswaga we came rather abruptly to the edge of the plateau and looked over the Abbai Valley with the Blue Nile at Tisisat fifteen hundred feet below us, its course picked out on the far side of a big grass plain by the dark-leaved trees that line its banks. The descent to the grass plain was not difficult, and we

arrived at Tisisat on January 2nd. Hitherto I had only had the limited view of Tisisat Falls that can be obtained from the right bank, and I was now determined to get on the left bank and see the full panorama.

The customs officials on the bridge insisted that I must have Ras Gugsä's written permission to enter his province even for an hour's sight-seeing. It meant delay, but I was determined not to go away without seeing the falls properly, so I sent a messenger to Debra Tabor with a letter to the Ras and waited until he returned with the permit on January 5th. I spent January 6th on the left bank taking many photographs.

The expedition departed from Tisisat on January 7th, following the river. My party consisted of the Consulate interpreter, Tahai Dasta, the head muleteer, Turuna Habasha, thirty mules, and thirteen muleteers, who had volunteered for the journey at double the usual pay, and had been selected as not being afraid to go down into the dreaded lowland forest country. Four extra men were engaged as mail runners to keep me in touch with Gallabat post office 200 miles away. There was also my escort of Sudan Police, Ombashi Saleh and two policemen, and my personal servants were Khetam, a Sudanese cook, Alamu, an Abyssinian cook's-boy, and a local man whom I had taught to shoot and skin birds and small mammals. Ras Hailu had sent one of his chamberlains, Shaka Mangasha, with a few followers to accompany us and give any assistance that might be needed. The muleteers indulged in a good deal of boasting before they started, but their courage only lasted as far as Tisisat, in fact just as long as they were on the high plateau.

January 1st had been chosen for the start as being the beginning of the best weather in the lowland areas, with four dry months ahead. In January the high grass in the forests is no longer damp, and grass-fires begin. It is im-

possible to see much of the country until the grass has been burnt off, as it is well above a man's head even when he is mounted on a mule. I was reckoning on spending four months on the journey, and we carried two months' provisions, for most of the land we were to travel in is uninhabited, though I was depending on being able to obtain replacements of local supplies occasionally, such as eggs, chickens, wheat, and mutton, and corn for the men and mules, by sending men up to the highlands.

No particular finishing-point had been fixed upon, that part of the plan being all too vague, but I thought that we might accomplish 450 miles and that our rate of travel might average four miles a day on the map. My aim was to map the hitherto unseen part of the valley and reach the point where Jessen left the river, if I could find it. As I have mentioned in a previous chapter, Jessen had begun his journey along the river in the other direction, starting from the Sudan. It was not possible to identify from his book or from any information available the exact place where he had abandoned the attempt, but he had found, as I was soon to discover, that following the river was one thing and mapping the valley was another. When you are deep down in the canyon of the Blue Nile you can see nothing but the sky, apart from a limited area of the adjacent forest country round about you, and for weeks Jessen was unable to tell exactly where he was in relation to districts and mountains on the plateau. I hoped that I might find someone who would remember the sudden appearance of a European from the bowels of the earth on the plateau some twenty years before. It seemed best to leave it till then to decide upon our further plans, according to the amount of time we might have in hand. If we had made rapid progress thus far and the rains were late, it would be possible to duplicate Jessen's journey from the point at which he had turned back, checking his positions,

and we might perhaps be able to go all the way to the Sudan frontier.

We followed the right bank of the Big Abbai after leaving Tisisat, and within half an hour crossed the Tul River, the boundary between the districts of Ganj and Ilmana Densa, about a mile from its junction with the Abbai. The water was 12 feet wide and one foot deep, and was flowing swiftly. The bottom was pebbles, and there was a rocky climb up the right bank, which was not easy for loaded mules. Two miles farther on we rounded a hill and saw the Abbai valley straight ahead for ten miles, on a bearing south-south-east. The hill ranges on each side were about 1000 feet high and three miles apart. The river hugs the eastern range, while the track kept towards the western hills. The valley bottom was mostly grassland with herds of grazing cattle, but there were plenty of cultivated patches with crops of millet, red pepper, and cotton, the latter grown in the rains and just coming into flower. A few hamlets could be seen a little way up the hill-sides, but big villages were visible on the tops of the hills, that is, on the high plateau level, for we were gradually descending.

The local guide who had been engaged to show the way ran away early in the march, and though Ras Hailu's letter which Shaka Mangasha carried gave orders that we were to be provided with guides as well as food by the country through which we passed, I now insisted that for the future I would pay for everything and would give the guide a dollar a day provided that he really did know the way. We engaged another man at the next village on these terms, and I took the precaution of paying out the money myself into his hand, to make sure that the right man got it. He guided us well as far as Waldagadana, and then took us into a thick forest of the high grass and orchard type—that is to say, with scattered trees resem-

bling in size and shape apple trees in an orchard—where, there being no track, the struggling mules eventually came to a standstill. He then confessed that he was lost, having got beyond his country, so we returned to Waldagadana, a good camp by the Big Abbai. Natives reported that farther progress along the river with loaded mules was impossible. Mule tracks of any size all led away from the river, and we should have to follow them and go up on to the high plateau as everyone else did. I decided to leave the camp standing the next day and ride forward to find a road for myself.

The general impression formed of the river at this stage was that it was becoming broader, but it was still in a narrow gorge though the sides were less precipitous than they were below the Tisisat Falls. The trees on the banks were not so dense and gave more frequent views of the water. We had passed several rapids tumbling through rocks, and in camp in the stillness of the night the distant roar of cataracts could be heard up and down stream. The Big Abbai in front of the camp was 70 yards wide, and the current was swift. A stick floating in mid-stream took thirty-five seconds to travel thirty yards. The depth was not ascertained, but a shepherd-boy took two minutes to swim across to the other bank, and he was carried fifty yards downstream.

Turuna Habasha caught three fish, the largest a *nachasa*, weighing five pounds. Another was one of the hideous catfish family with a face like a gargoyle with long whiskers. The catfish of the Big Abbai differ from those caught in the Small Abbai and in Lake Tana, as they have a thick fleshy caudal fin which is absent in the others. We caught plenty of edible fish at all camps down the Big Abbai, and they made a welcome addition to my tinned provisions. We could also shoot guinea-fowl and francolin, which always came to the river-banks to drink in the evening.

While wandering in the forest I came upon a grand specimen of a waterbuck which was staring at me down a glade. It was in no hurry to move away, and gave a fine opportunity for a shot had I been inclined to take it.

Shaka Mangasha, who had gone to the nearest village for a night's lodging, sent a message to say he had been unable to find accommodation. Most of the inhabitants were suffering from some sickness, and those that were well were attending funerals, so he was going farther afield. I had suggested that he might enquire for carriers for our kit if mules could not pass along the river, but he could not obtain them either that day or on any subsequent occasion. The porter system used for long-distance transport in other parts of the country is not a North-West Abyssinian highland custom, though men and women carry their own personal property long distances on their heads.

We devoted January 8th to finding a road, and discovered that the track was better than we had been led to believe. The sky was overcast, and the sun was hidden by clouds all day. We followed a branch road which seemed the most used and had only gone a mile when we luckily met two woodcutters who told us that we were heading for the high plateau. We returned with them, and they put us on the proper track, which kept near the river and would, they said, be passable for loaded mules up to a village called Wanzagai. Having gone along this far enough to be certain that we could take the caravan, we turned back. Although we were in thick forest there were extensive crops on the left bank of the Big Abbai. The river was a succession of tumbling cascades and cataracts. The source of one stream, coming from the western hills, was said to be a famous hot spring called Ganat, and we passed a salt spring in a small dry torrent-channel.

On January 9th we covered the six miles from Waldagadana to Wanzagai. Shaka Mangasha turned up in great

distress before we started because, after all his efforts, backed by his letters of authority, he had been unable to find chickens, eggs, or a guide; however, he brought a goat. A volunteer guide who had arrived in the camp the previous evening to say that he was prepared to take us all the way now refused to go, so, being in a strong position, I told him that we did not want him. He nevertheless started in front of us, but when he took a wrong turning twice in ten minutes I had him sent behind and rode ahead myself. Along the road we found the chief officer of the district awaiting us with his followers. He had come a long distance from the highlands to pay his respects, as is the custom. He was young and intelligent and, having read my pass from Ras Hailu, asked what he could do. I told him that I did not want free food from the villages, but required guides who really knew the country, and I would pay them. He accordingly told two of his soldiers to take us to Wanzagai and on as far as his boundary the following day. When they got there they were to tell the official in charge of the next district what we wanted. This was just the kind of arrangement we required, and for a time things went more easily.

I was glad of a guide, as the last four miles of the track ran through the orchard type of forest with much high grass that towered well over our heads as we rode along. The track was not easy to find in consequence, but it was level, and loaded mules had no difficulty. The village of Wanzagai is about two miles from the Big Abbai, up one of the side valleys, but we turned and camped by the river-bank. It was a beautiful place, with the river swirling over rocks as usual in a small valley of its own inside the big valley. The grass round the camp was tall and dry, and care was necessary to avoid starting a grass-fire. The men understand burning circles and beating out the fire with leafy branches of trees; the camp-fires are made in the

centre of the blackened patches and are quite safe. The river-banks were rocky boulders of loose volcanic rock, and were well clothed with fine trees with shiny dark-green leaves. Some of the trees had sweet-scented flowers, round which fluttered large butterflies of the pale-yellow swallow-tail and other varieties. The weather was not as yet unpleasantly hot, January being one of the coolest months of the year. The shade temperature at noon was 85° Fahrenheit, three hours after sunset 66°, and five minutes before sunrise 51°.

We had been warned to look out for robbers, and all the herdsmen were armed with rifles. During the night I woke and heard something approaching my tent through the dry grass. Looking out I saw a form moving slowly towards me, but could not tell whether it was a man or an animal. When I called out there was no reply, and the figure disappeared silently; had it been an animal it would probably have gone crashing through the grass. I called my police, and one slept near my tent with his rifle beside him.

During the evening we had had an exciting hunt after a Goliath Heron which I wanted for my collection. I tried a long shot at it, but only winged it, and it fell in the middle of the river and clung to some rocks. After being dislodged from there, it swam with ease against the current with head erect, looking like a red swan. At last it got into the rush of water below a cataract and was carried downstream. Five of my men threw off their clothes and swam after it. I was afraid that they might be killed, as a Goliath Heron can drive its powerful bill through a man's skull, and I shouted to them to come back, but my voice was drowned by the rushing waters. The bird reached another cascade ahead of the men, who wisely came to the bank and ran along it to the pool below, where they entered the water and caught the heron half a mile downstream. It is now in the Natural History Museum.

In spite of my saying that we did not want any free food from the villagers, the Government official at Wanzagai sent 100 *injera* (flapjack bread), 5 jars of *talla* (native beer brewed from barley), 5 chickens, 20 eggs, and 50 pounds of *shimbra* (chick-peas), for which I gave the headman of the village two dollars. Milk was unobtainable. This amount of food was frequently supplied when we camped within reach of a village, although I did my best to persuade Shaka Mangasha to stop it. He made the excuse that Ras Hailu had issued his instructions that food was to be supplied, and if he did not carry out his orders he would be in trouble when he returned to him.

On January 10th we left Wanzagai camp and arrived at Yekel, a distance of 9½ miles. We had to leave the Abbai banks, as a hill-ridge to our south came right down to the river and was too precipitous even for an Abyssinian track. We therefore made for Wanzagai village straight up a tributary valley, and, crossing the ridge at a lower saddle, returned down the next valley to the Abbai, having completed a U-shaped circuit. To pass over the saddle we had a stiff climb of 800 feet, and Wanzagai village, a hamlet of twenty-five houses, could be seen half a mile to our right. The rise was not difficult for well-loaded mules, but our awkwardly shaped boxes were troublesome. From the top the distant hills near Sabera Dildi, the Second Blue Nile Bridge, were pointed out, and Ajeri village appeared on the slope of the next ridge across the valley of the Yetai River, a mountain torrent with a trickle of water and a pebbly bottom. All the side valleys in the district were much the same, and each valley supported one hamlet. Near a cottage by the roadside we passed a cactus-bush that was loaded with ripe prickly pears. We took some of the fruit from it and offered payment to the owner, which he politely and firmly refused. After fording the Yetai we kept straight down the valley towards the

Abbai, passing crops of *tef* and bastard saffron, also a yellow thistle-like plant grown for oil, called *suf*, and much tall millet and *shimbra*.

After reaching the Abbai the track kept parallel with it past the next hill-ridge, which stopped short of the river, and we found a camp beside a sharp bend in the river's course called Gind Azur, "timber-catcher" or "timber-circler". The water enters a pool on a bearing of 172°, circles round, and leaves it at 125°. Big trees coming down in the flood are carried straight across the pool to be landed on the strand on the opposite side, which resembles a large timber-yard. The flood-level of the river is plainly marked on the volcanic rocks that form the bed. The Abbai is kept so closely to its bed that its flood width is only a few yards greater than the low-level width; its height in flood would be increased by eight to ten feet, but with such a decided and continual fall that the speed of the current would soon be doubled by the pressure behind. For the next ten miles or so from this point the feet of the hills on the right bank meet those of the left bank, and the river has cut itself a deep groove in the solid lava rock for its passage.

On January 11th we travelled only $3\frac{1}{2}$ miles, from Yekel to Agazaba. The start was delayed, as Shaka Mangasha, who had gone some distance to find a village for his night's lodging, sent a message in the morning to say that he could not get a guide for the next stage. He turned up later looking very worried, and advised going on to Agazaba. We found the track for ourselves and had no difficulties with the loaded mules.

A mile below Yekel, where the river-bed was cut in solid rock, the Big Abbai was crossed by a bridge made of tree-branches tied with creepers. Only men on foot could cross by it, and the structure is washed away annually by the first flood. The bridge, which goes from cliff-face to

cliff-face of the gully, was 14 feet long and was 12 feet above the water-level.

The course of the Yezat, which was shown correctly on maps, runs independently into the Big Abbai in a valley of its own, the bed being deeply grooved in gravel soil.

The road from Agazaba to Gargimbit, on January 12th, was tiring for the mules, as the track took us up and down hill all day, but it was not very difficult. We passed spur after spur, going two miles west of the Abbai in the valleys across the drainage channel or rain-torrent and then back to the river, covering five miles as the crow flies but travelling thirteen miles. Each valley had a village, the men of which cultivate the flats of the valley down to the Abbai. We passed by crops of cotton, *shimbra*, bastard saffron, *simsim*, and red pepper. The village of Agazaba, with no more than twenty houses, was left half a mile to our right. Good views of the small district of Anto were seen on the left bank of the Abbai, and there also the big valley of the Wajo River comes down between hills 1500 feet high to join the Abbai. The Wajo has the same character as other tributaries of the Blue Nile in its upper reaches, and is a small stream quite out of proportion to the great valley-slopes that enclose it.

As we were crossing a hill we looked down into the Abbai 600 feet below us and half a mile away. It was in a narrow ravine of rock, deeper than it was wide, with perpendicular cliffs for its sides. The ravine was almost treeless, and the water looked olive-green and not the usual deep blue. The course of the river could be plainly seen for miles, thrust first one way and then the other by spurs on alternate banks, but the zigzag effect could not be shown on small-scale maps.

We tried to reach the Abaya River, a big right-bank tributary, but the mules were tired—one had to be abandoned—and we camped. I never left sick or exhausted

mules alive on the road to finish their faithful service in the jaws of hyenas. If we were not near villages where we could leave them a man was sent back with a gun to give them a merciful end.

The distance from Gargimbit to Agam Wuha, on January 13th, was two miles along the Abbai, but nine and a half miles were covered. We spent the whole time in crossing the precipitous sides of the Abaya ravine, which had never been passed before by loaded mules—in fact it is only just possible to do it. All the roads from villages led straight away from the Big Abbai towards the high plateau. We passed through Gargimbit, a group of villages of about twenty houses on a hill with a cultivated plain extending to the edge of the Abbai ravine. Our track, hitherto only used by men on foot, turned westward up the left bank of the Abaya, the river being completely hidden in a ravine 700 feet deep, and only visible when one came suddenly to the edge of the precipice. It is one of the peculiar fissures that are associated with the Chokai Mountains, in which it rises, we were told, at a place called Gadab Abo. At Gargimbit I noticed that in addition to the crops we had been seeing for the last few days a tall millet with white seed, called *gambelo*, was being grown, and there were wheat-fields. Wheat grows to perfection at 8000 feet above sea-level, but here were fields of it at 5600 feet, the lowest altitude at which I have seen it cultivated in Abyssinia. The farmers said that the seed grown from it was thin and inferior.

On arriving at the edge of the Abaya precipice the descent looked appalling. I took Tahai Dasta and Turuna Habasha with me, and we went on foot to the bottom and back examining the track. They thought that we could get the mules down if special precautions were taken, so men were first sent to cut down some of the trees that would have stopped the loads, and then each mule descended

separately with a man at its head. At the foot of the cliff we found ourselves in the bed of the Alamash stream which joins the Abaya near by. We followed the Alamash to get to the Abaya, then turned upstream for a few hundred yards to a difficult ford where the mules stumbled across, only one falling. There was a bridge of branches about twelve feet long spanning the main stream from rock to rock, across which I crawled in preference to the chance of a ducking if my mule fell at the ford. The Abaya water was 27 feet wide and 3 feet deep, with a current of about 6 miles an hour. It seemed to represent a third of the volume of water that was passing down the Big Abbai itself at the junction.

We had been fully occupied with the descent and had not taken the precaution of finding out whether we could get up the side of the ravine on the other bank. There were three or four nasty places in the steep climb, and several loads were thrown, but the men, working like heroes, eventually got the last mule to the top. Men and animals were weary, so we went to Agam Wuha, the nearest village, for camp.

I had recently made a public parade of the payment of guides, and used to put the money into their hands myself. Apparently this had borne good results, for the two men who guided us this day were excellent and made no mistakes. I also gave a dollar each to five men who had helped with the loads on the precipices, and hoped the news would spread and go ahead of us to ensure a good reception.

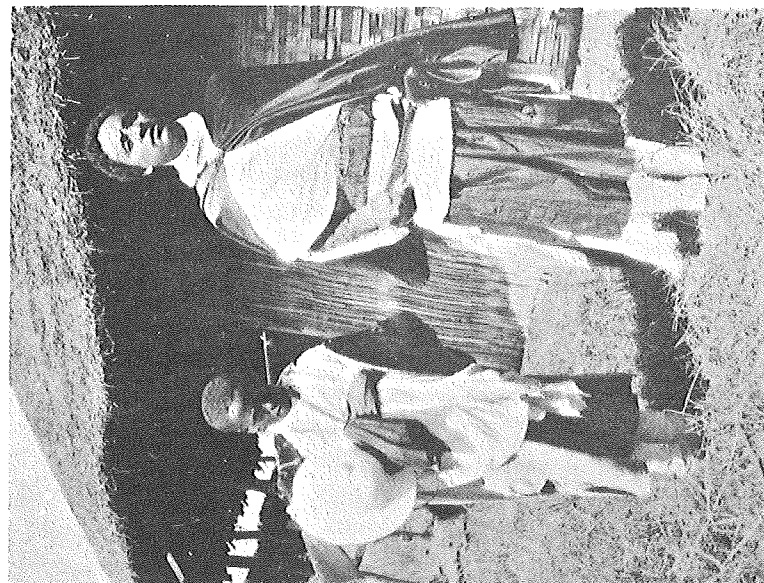
The Abaya here is said to be the boundary between Gojjam province and the big sub-province of Damot. We had the matter thrashed out between local officials, and started such heated arguments that it was evident we had raised a controversial subject.

From Agam Wuha to Yamaret, next day, meant eight

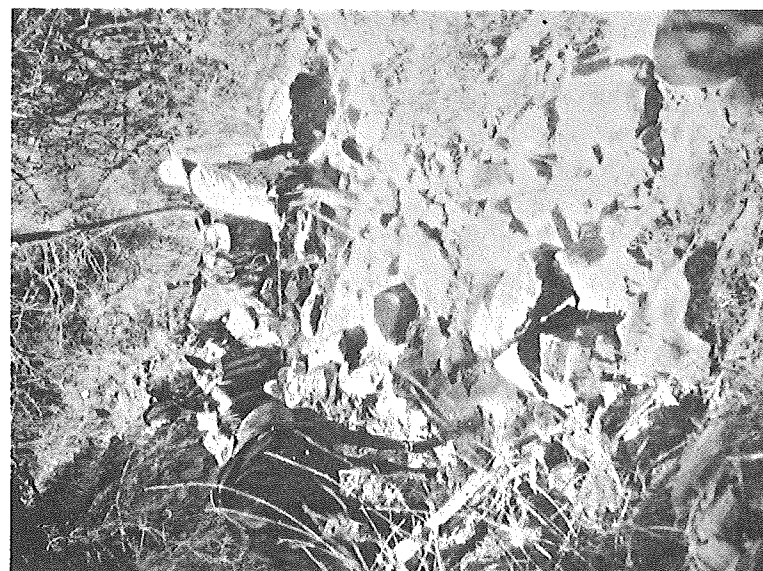
and a half miles of travel for two miles of the river. It was a difficult road with several slippery rock-surfaces on the hill-sides that had to be crossed. Several mules fell, but there were no casualties. It had been described as a good road, and we had not thought it necessary to go ahead and make preparations as we had done the day before. We started by climbing a hill-side half a mile from camp, so heavily bushed that the mules got lost in it, and it took some time to extricate them. We then went along a better-marked trail round to the east of a spur, where there was an overhanging rock which bumped the loads and sent one mule over the side of the hill, sliding down the slope for twenty yards to be caught in a bush and rescued. From here we could see the Abbai gorge at Sabera Dildi but not the river. The caravan road to Debra Tabor was visible, a thin ribbon winding 1000 feet up on the hill-side. We rounded several more spurs, from one of which we looked back on the Abaya-Abbai confluence, far down in a cliff-sided ravine, the cliffs being 200 feet high and the river 1000 feet below us. These deep ravines of both rivers in a valley that is already of a considerable size, with ranges of hills 1500 feet higher on each side, strike one as being a very remarkable formation.

The Big Abbai itself seemed to be becoming smaller and more insignificant as I travelled farther downstream, whereas I had been expecting a substantial increase in its size.

I had been looking forward to the crossing of the main caravan road leading down to the masonry bridge called Sabera Dildi. The road was marked in red on the map, and this alone gave one an impression, if a false one, of a return to civilisation. We found it to be merely a rough mule-track little better than the one we were travelling on, and running at right angles to it, but our arrival there was an event, for this was the first landmark passed on our



SHAKA MANGASHA (p. 234)



A MAIN ROAD IN THE ABBAI VALLEY AT SABERA DILDI

long journey. As we crossed the caravan road we entered the district of Mota. A big church stands upon the high plateau and is famous throughout the country. Mota is all glebe land belonging to this church. We crossed one small torrent, the Gwadit, which is marked on maps as the Dot, a name which no one had heard of locally. This enters the Abbai a mile below the bridge in a precipitous ravine of its own, out of all proportion to the little stream on the right bank of which we camped at Yamaret village in the parish of Jimawanyeta.

Downstream of the bridge on the left bank of the Abbai there is a chalk-pit in the canyon where Ras Gugsa Wolye and his predecessors in the Governorship of Bagemdir, and probably the Portuguese Fathers in the seventeenth century, quarried chalk for the burning of lime. This is interesting geologically, as the limestone stratum lies beneath the more recent volcanic basalts, and we find here that the Blue Nile, which from its source has been flowing over the lava-cap of which the high plateau is composed, is, near Sabera Dildi, getting below the lava and entering the softer underlying rocks, the limestones and sandstones.

We reached the Second Blue Nile Bridge, known as Sabera Dildi or "Broken Bridge", or Agam Dildi, on January 15th. Although the road to it is a main trade artery it is exceedingly bad, as I have said, and the descent by a series of corkscrew-like bends on a loose rock-strewn track took a long time, considering that the barometer showed only a difference of 550 feet in height between the camp and the river. My adjusted height of the water above sea-level at the bridge, checked by boiling-point thermometer at the camp, was 4621 feet, which gives approximately the height of the base of the lava-cap of the Abyssinian plateau.

Photographs of the river taken at the bridge show it flowing through a narrow trough-like gully, with basalt rock on each bank, but at the Tammi river junction, the

next point where a photograph was taken, the view is of a much wider river-bed, with the Abbai flowing between cliffs of sandstone. As we went farther and farther down, the base of the lava-cap was found higher up the banks as the river descended lower into the sandstones.

At the bridge the water of the Abbai was 36 feet wide and was travelling at four miles an hour. Some of the men plunged in and swam across and back again. There is no ford and the depth appears to be considerable, although rapids were visible a quarter of a mile downstream.

The merchants' caravans from Debra Tabor use this bridge on their way to Addis Ababa, although they have to recross the Abbai again at Jarso. The road is longer, but it avoids the awful precipices of the Bashilo River and its tributaries that lie across the more direct route, and the bridge also carries a large proportion of the trade between Bagemdir and Gojjam provinces. European travellers have attributed its construction to the Portuguese, and they are probably right, but I have not found any reference to it in the early books. In architecture and style it resembles the bridges round Gondar, which were undoubtedly the work of the Portuguese missionaries. It is built of lime mortar and rock, and the roadway over the arches is about eight feet wide. Two big arches span the main channel, supported by a square pier in the middle which has its base in the river-bed. Three smaller arches at the side are designed to deal with high floods. Repairs had been carried out in recent years, as is recorded in an inscription in Ethiopic, cut in cement, reading: "This bridge was renewed by Menelik II and by the Damot folk under Ras Mangasha and by Gojjam folk under Dejazmatch Seyum [now Ras Hailu]. The head of the works was Haile Maskal, in the year 1900 [Amharic date]." On the left bank is a very similar inscription, but Ras Gugsä's name is substituted. The main pier, with its base in the middle of the

river bed, a weak feature in any bridge on the Blue Nile, was already badly worn away where rocks and tree-trunks strike it as they come down in flood.

I spent the evening in fixing the latitude by observations on north and south stars with the theodolite.

January 16th was spent in camp, as Tahai Dasta and Shaka Mangasha went up to Mota to buy four fresh mules. Most of mine were feeling the effects of the hard, gruelling journeys, and five were galled and had to be rested.

On January 17th I rode forward to see the road that lay in front of us in case there was any difficulty about guides, taking Ombashi Saleh and one policeman. We asked the way at villages, and, having decided that the six miles I had seen was good enough for our purposes, I went back to camp.

CHAPTER XIX

SABERA DILDI TO THE TAMMI RIVER AND ABBAI JUNCTION

January 18-25, 1927

THE first place we passed through when we began our journey again on January 18th was Yamaret, a collection of some thirty scattered houses. The villagers were cultivating tall millet grown on artificial terraces on the rocky hill-sides. The Zerai River was seen at its junction with the Abbai on the left bank in the usual deep valley between the hill near the bridge and Galawdewos, a mountain that towers above the valley. The Abbai was 1000 feet below us and half a mile distant, and was no longer enclosed in a narrow ravine as at the bridge. It was in a solid-rock bed with many cataracts, and we were told of a ford below this reach which becomes passable for mules in the middle of March.

Our view in front, down the Abbai Valley, ended at the hills of Gonsha, 35 miles away, and there were indications that the rock-bound ravine in which we were becoming accustomed to see the river was expanding, though the great valley with its high hills did not alter; in fact, the mountains seemed to be getting higher, although, of course, it was because we were descending.

At five miles we joined, for a short distance, the original Debra Tabor-Gojjam trade road that crossed the Abbai by the ford, and then our track left the road and went over the Lomi River, a torrent-channel. Our camp was by the Lomi, 400 feet above the Abbai. We were experiencing warmer days and no longer got the temperate breezes that

make the highlands so pleasant. The temperatures were: five minutes before sunrise in Yamaret, 50° Fahrenheit; shade temperature at noon, 89°; in the sun on the ground, 114°. The reading of 114° on the ground gives an idea of the conditions to which the Abbai water is subjected in shallows near the edge, and the evaporation that is going on day and night in a journey of several hundred miles. The loss by evaporation is enormous, and the river during the dry months is comparatively small, a fact that I had failed to realise until I saw it. During the rains, however, what one knew as a clear, placid stream becomes transformed into a roaring torrent of chocolate-coloured water.

The twelve miles from Tafo to Gurami village next day were a long, tiring journey for men and mules, including two particularly difficult rises, and several mules and their loads fell and went over the hill-side. Fortunately the animals always seem to be caught in a bush before coming to disaster, and the Abyssinian muleteer is marvellous at handling these difficult situations. Several men would dash down the slope, and in a surprisingly short time the mule was back on the path again, reloaded, jogging along as if nothing had happened. One of the loads that fell was the theodolite in its box. I saw it go bumping over and over and gave up all hope that such a delicate instrument could ever be useful again, but careful examination, when we arrived, revealed that nothing was wrong. My twelve-bore gun was not so fortunate, as the bird-collector who was carrying it stumbled and fell, breaking the stock. It was soon in commission again, for my men bound the wood tightly together with wire.

The Abbai was seen during the march half a mile away. The water was now about 36 feet across, and the bed seemed to be mostly rapids and rocks.

After we had been going for four miles we found ourselves opposite the foot of the downstream spur of the big hill

Galawdewos, situated on the left bank; it ends in a rounded oblong hill which, in the imagination of the Abyssinian, resembles a hippopotamus, so they have given it the name of Gumari, the Amharic word for that animal. The Abbai was seen in a ravine with 200-foot precipices for its sides, skirting the toe of the hill, whereas it used to go to the north of it. The old channel is visible and is now 100 feet above the new channel. Folk-lore had recorded the change, of course, but enquiries produced nothing more valuable than that it took place long ago. I could not decide whether the raising of the mountain had forced the river round its toe, or whether the river, finding softer material, had in the course of years cut for itself a lower channel. On reaching the top of a 400-foot climb we arrived at level ground, and as there was a village there we decided to camp. We found out just in time to avoid unloading and loading again that there would be no water for the animals, and that the village women fetched their supplies from a stream at the bottom of a precipitous path. The village of fifteen huts was empty, except for one man who was an invalid; all the rest had gone to a distant church to celebrate the Feast of Timkat, the Baptism. We had to climb yet another spur, a difficult ascent, and then reached the village of Gurami, near which the tents were pitched. Within half a mile was the conspicuous exposed lava-core of a small volcano called Awus Gedai, that reared a rugged crest of rocks 300 feet high. It had been a useful landmark for my bearings for the last two days, as it was unmistakable from any direction. My tent was on the edge of a cliff, looking due east down the Gurami Valley running to the Abbai, the water of which was invisible, concealed in a range of hills and valleys six miles away. The view extended to the left bank with a background of mountains in Koma country, and past that to even higher ranges in Samada.

Sharp grass-seeds had been a plague for the last few days—they cling to all your clothing and work their way through to your body. One particularly troublesome plant was very appropriately called *Yesatan Murfi*, or Satan's Needles, by the men. Another plant had recently shed small circular seeds with sharp spikes on the ground. An abundance of the spikes penetrated even the hard soles of my barefooted men, and they were all limping over the infested spots.

When we went on to Bakaka, nine miles away, on the 20th, we found that in spite of all my efforts to keep near the Abbai we were being forced away from it. Bakaka was on the side of the valley, 600 feet above the river and 6 miles off. The track was not very difficult, despite two or three bad places within the area of the Sadai River; we had good guides and were forewarned. Many of the rivers were enclosed in precipices, inaccessible to cattle, and some were dry in January, so care was necessary in the selection of camps. The day was unpleasantly hot, the shade temperature at noon 93° Fahrenheit, and in the sun 125°.

The first part of our road ran parallel with the Abbai and about a mile from it, and we could see the Wanka River on the left bank in a broad valley, bordered on each side by mountains 1000 feet high. The Wanka and Zerai Rivers were shown on maps as joining and entering the Abbai together, but they have separate mouths, the estuary of the Wanka being independent of that of the Zerai and at least five miles downstream of it.

I had found an intelligent local official at Gurami, and had taken the opportunity of learning something about the country lying in front of us. He shook his head over Gonsha, and said that it was very bad going for loaded mules as there were some big precipices to be passed. It was becoming necessary to decide whether it would be

wiser to go up on to the high plateau, circumvent Gonsha, and return to the Abbai, or attempt to go straight ahead, taking the risk of getting my caravan down into one of the ravines and being unable either to go forward or to go back on our tracks. The ravine of the Tammi River seemed to be the stumbling-block to a direct attack on the country before us.

Tarafa, one of the muleteers, who had been ailing for several days, became worse, and I could only give him some quinine and leave him to make his way back to Dangila. He was swelling all over. I could ill afford to lose him, for he had been with me ever since my arrival in the country and was not afraid of the lowlands. He was much affected at parting and had tears in his eyes when the men said good-bye. Little did I think that morning that we should not meet again.

On January 21st we covered only the five miles to the Gomit River. On leaving Bakaka there was considerable delay at a 600-foot rise up the next spur while we transferred the loads from weakened mules to those that had more strength left. We intended to move only a short distance in order to be in a better position to inspect the road in front, as there seemed every possibility of landing the caravan in a cul-de-sac.

The views over the Abbai Valley were splendid and forbidding. On the left bank the Yewa River was seen in a great chasm torn through the hills. Amara Saint appeared as a far-off mountain in the Wallo country. Natives said that it was near the Bashilo River. It seemed about thirty miles off, but was actually seventy. On the right bank the high points of the Inabsai Mountains were becoming clearer as we approached them, and Yakandach showed conspicuously as a crown-shaped rock peak 20 miles away. A 400-foot descent to the Gomit River was moderate, and we crossed the stream and camped on the

right bank. The current was small but there were pools.

As I had not been feeling well I decided to rest the following day. The two mail-runners who had left for Gallabat three weeks before with letters had not returned and were long overdue. I was a little anxious about the men, but had grown quite used to long periods without news from the outside world.

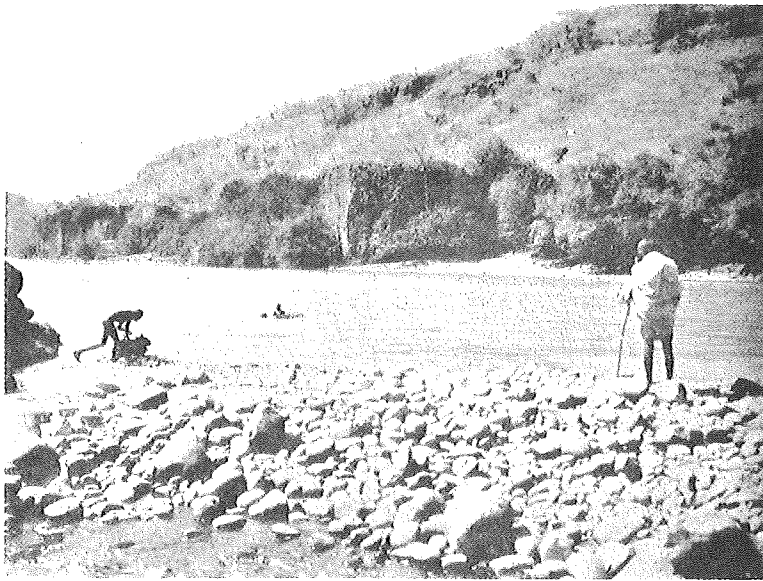
A large cockerel had been presented to me at Bakaka, and as he was not required he had slept the night in the cook's tent. While the gear was being loaded in the morning the cock was strutting about among the saddles in the camp when a large specimen of the Martial Eagle (*Polemaetus bellicosus*), with black head, white breast, and an enormous spread of wing, swooped down and carried him off before the men's astonished gaze. The eagle was followed by four Fan-tailed Ravens, who were evidently expecting to share in the pickings. Such incidents are soon forgotten; the men made a few jokes, sympathised with the fowl, and went on with their work. Ten minutes later a sound of cackling was heard on a hill-side in the forest. Our cockerel had apparently put up such a good fight that the eagle had dropped him, for after a short search we found him running about among the bushes on a tree-clad precipice. It took three men a long time to catch him, and it delayed our start, but we could not leave him to his enemies. My last glance at the scene showed me a dejected-looking eagle hunched up on a tree-top, and four equally disappointed ravens seated on trees not far away.

It took a lot of determination for me to remain inactive in Gomit camp for a whole day with so much to be done and new country all round. The mules wandered, rolled, and grazed from morning till evening; they badly wanted a rest. I tried to buy more in the neighbouring villages, but there was not a mule to be seen. Although mine were still capable of going on it seemed wiser not to push

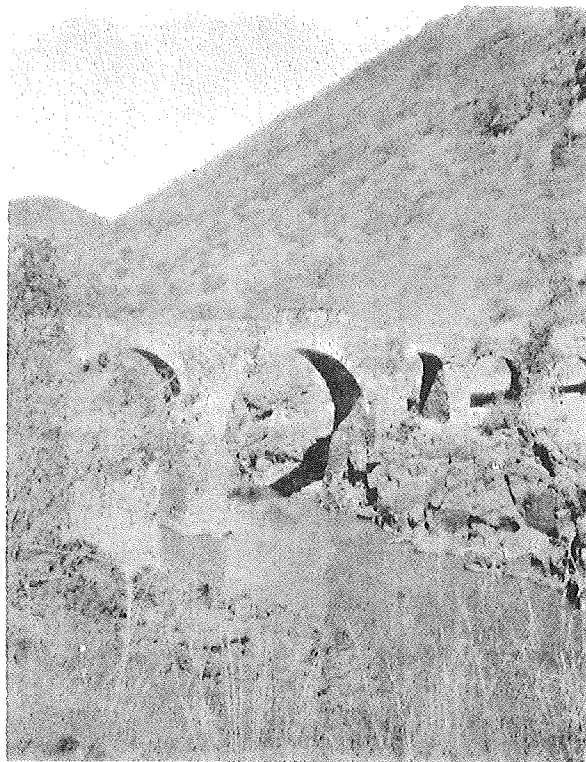
them to a standstill in that kind of country, so Tahai Dasta went back to Mota to buy five more if he could find them.

On January 23rd, as Tahai Dasta had not returned with the mules, I left the camp and rode forward with the police to see the Tammi River. It proved to be a two-hours ride to the water's edge. The aneroid barometer I had been using had had a fall on the previous day, and now retired from duty. Luckily I had a duplicate, which was used to the end of the journey.

We kept to the right bank of the Gomit Valley for a while and then began a bad descent of a spur into the next valley, where we got marvellous views of wild, rugged scenery. The Guna Mountains were faint in the distance on the left bank of the Abbai. On the right bank the peaks of the Gonsha Mountains formed the background; the guide called the highest point Yakandach, which is shown on maps and given an altitude of 12,162 feet. The northern slopes are sheer cliffs of 1000 to 2000 feet, and one bold valley through them admits the Tammi River, coming from the highlands of Chokai, visible through the gorge as a faint blue range. Our descent to the Tammi was divided into two distinct stages, both of which would have been difficult for loaded mules. We could not ride much and did most of the day's journey on foot. In the bottom of the ravine we came at last to the Tammi and found a perennial stream 18 feet wide and 18 inches deep, with current flowing at one mile an hour. The gully holding the river was 40 feet wide with precipitous cliffs of 100 feet on each bank. My inspection of the Tammi gorge decided me not to risk my transport on this next stage. According to our guide the right-bank rise was as bad as that on the left, and the ravine-sides at the Ganj River, which would also have to be crossed, were worse still. He agreed that the Gonsha country could be crossed



WOMAN CROSSING BLUE NILE AT TAMMI RIVER JUNCTION



SABERA DILDI, SECOND BLUE NILE BRIDGE (p. 247)

with a specially fitted-out caravan loaded on donkeys, but I realised that if I was to see several hundred more miles of the Abbai Valley, as I hoped to do, it would be better to go round Gonsha.

The Ganj, the guide said, was a stream of about the same size as the Sadai, and ran independently into the Abbai.

As it was several days since I had been close to the Big Abbai I arranged to go down on the 24th and spend a night on the banks at the nearest point. Leaving the camp standing, we took three lightly loaded mules with a small tent and food for one night. The road was not very bad, but we had to lead our riding-mules for most of the way, and it took us four hours to reach the Abbai water, a distance of about six miles and a descent of 2000 feet. The track, for which we obtained a guide, proved to be a village-to-village path from Gomit, crossing the Abbai at a ford just upstream of the Tammi mouth.

We went four miles on fairly level ground and then climbed down the left bank of the Tammi Valley, and having reached the water were glad to take a rest under shady trees. We then continued the journey along the pebbles and boulders on the river-bed, which the mules found difficult to walk on, and within a mile arrived at the junction of the Tammi and the Abbai, after crossing and recrossing the Tammi six times. The right bank of the Tammi is the boundary of the district of Gonsha.

A small family party of villagers were fording the Abbai and were going, they told us, to Koma market, which is held every Tuesday. They had no animals with them, but they had to have a primitive raft to take a woman over. Abyssinian women cannot swim, though the men, especially those brought up in villages where streams and fords are numerous, swim very well and never miss an opportunity of taking off their clothes and bathing when they

halt by a river. The raft, made of reeds and wood, was shaped like a V. The woman stood in the water in her clothes within the V, which came under her armpits, and the man brought the two ends together and bound them with a stick, enclosing her in a triangle, which was more like a life-belt than a raft. Grasping the two ends and swimming with his legs only, he then pushed the raft and the woman over the river in front of him. A boy about five feet high walked across with them, the water at the deepest part coming up to his arm-pits.

The Abbai channel, having escaped from its lava-enclosed gully, was wider, and there was space along the boulder-strewn shores, but the loose pebbles would make travelling along them a slow and tiring process. The river was beginning to look less like what a Scotsman would call a "wee burn" and more the river of my dreams. As in most of the Blue Nile country in Abyssinia, there was uninhabited scrub forest near the river. In other places there were a few cows and goats with wild-looking shepherds, and not far up the hill we had seen small ploughed patches growing cotton. The men who till this land come down with their plough and oxen from villages three or four miles up the sides of the canyon. They are of Amhara stock, but having been bred in the semi-lowlands are more immune from the ravages of fever. The thought immediately occurred to me that I might engage some of the village men as muleteers to accompany me along the Abbai, but it was pointed out that they were agricultural labourers and were not sufficiently skilled in the art of loading packs to give any hope of success. Unless he has been expertly loaded a mule gets rid of his pack without any further ado, and even if these men could keep the saddles on the mules they would not be skilful enough to give them a well-balanced load and the animals would be galled and ruined within a few days.

The Tammi enters the Abbai through an imposing ravine between cliffs of 150 feet. We camped on the pebbly foreshore, now exposed by the falling rivers. Along the Abbai the "white horses" of cascades could be seen upstream and down. Very little of the country was visible: although we knew that the great sides of the canyon were towering above us we could not see beyond the smaller hill-ranges near the river. Butterflies and birds were scarce. Red-winged Starlings had a home in the precipices, and the loud call of the African Sea Eagle was heard and his white head was conspicuous as he sat on a tree-top watching for fish. A Giant Kingfisher flew up and down with raucous cries, a great lumbering bird of dull colouring compared with his small relative of English streams.

The rivers here are not quite free of the volcanic rock, for the cliffs through which the Tammi was flowing out were of amygdaloidal basaltic lava, but there was some sandstone on the shore.

It felt bitterly cold before sunrise on January 25th, and everyone was shivering. As I wanted to take bearings of the river's course I sent the pack-mules back to Gomit camp ahead of us as soon as they were loaded.

I noticed for the first time that white oleander and tamarisk were growing on sandy patches on the Tammi banks; they are both plants that are characteristic of the lower reaches of the Blue Nile. The high-water level of the river was plainly visible by the wrack left on tree-branches, and it was twelve feet above the present level of the water.

Uncontrolled grass-burning is timed to take place in this area in early May when crops are cleared. The date is given out annually by proclamation by Ras Hailu, and up to then it is only permitted to burn fire-belts round villages. The regulation is often disregarded, and the culprit is not often caught. Once the fire gets away it

travels for weeks and may be very dangerous in the long grass of the lowlands. Stories are told of camping parties who have been encircled and burnt to death. It is an awe-inspiring spectacle as miles of living fire approach with a wall of black smoke close above the flames. At times the sound of the burning dies down when a part without high grass is reached, and the flames travel along stealthily, licking up dead leaves and rubbish, until they once more reach a mile or two of long-dry vegetation, when with an indescribable outburst of noise pandemonium breaks out again. At night it is more terrifying, as the sky is lit by an angry red glow. The only obstacles that may curtail its progress in the forests are rivers, if they are broad enough, and game-paths or mule-tracks, and it is surprising how small a track will stop a big fire, providing there is not a high wind. If there is a path or a river between you and the burning grass it is fascinating to watch a forest fire. Many species of birds follow the smoke, and bright-coloured Rollers and Bee-eaters fly above the blaze catching the insects that are driven out of their hiding-places. The Carmine Bee-eaters are regular attendants and are very daring; their burnished red plumage resembles glowing red embers as they dash in and out of the smoke. The following day the blackened forest presents a sorry scene, and round about on the ground are groups of Marabout Storks, White Storks, visitors from Europe, and in the trees are eagles and kites, one and all so gorged with roasted lizards, mice, and grasshoppers, and so sleepy that they will hardly fly out of your way.

CHAPTER XX

TAMMI RIVER TO DIBO AND DAGA FORD

January 26-February 7, 1927

WE left Gomit on January 26th to move to higher country at Waibela, $3\frac{1}{2}$ miles away, where we were 8000 feet above sea-level. Waibela is on the edge of the high plateau overlooking the Abbai canyon, which was becoming bigger and deeper every day as we advanced along it, even if the river itself did not seem to be doing so. Our track followed the line of the Gomit Valley, keeping on the crest of the ridge, and the road was an easy climb at right angles to the Abbai like most of the tracks.

Mulu, one of the muleteers, had developed a sharp attack of some illness. It had probably started with a chill and had developed to pneumonia. He had to be carried to the nearest house we could hear of, with three men holding him on a mule, and left there until he could be brought into camp in the evening on an improvised stretcher made of tree-branches. This misfortune had a depressing effect on the men, and it was just the kind of bad luck we did not want then, as it was all-important to keep their courage up now that they were about to venture into the dreaded lowland country. In addition Shaka Mangasha had lost the pass which had been given to him for us by Ras Hailu, and as we could not expect to get far without it messengers had to be sent for another. Their journey was expected to take only four days, as we heard that the Ras was on tour on this side of his country. I took the opportunity of writing to Ras Hailu, enclosing a message to the British Minister at Addis Ababa, and asking him to have it

telephoned from Debra Markos to say that my mails had not arrived, but that all was well.

In the evening Mulu was carried into camp on the litter. He was by this time raving mad, and I sent a man to Dangila to fetch his relatives. The messenger thought he could get there in three days. I was sure that Mulu's illness would be attributed to the Abbai, but as he happened to have been left in the upper camps and had not been with me down below on the Tammi, it was unlikely to have had anything to do with the river. However, all the men were now seriously alarmed, and there was a great demand for Epsom salts.

The view of the Abbai canyon from Waibela was magnificent. We looked right over the valley to Guna Mountain, 40 miles away. Upstream the Sabera Dildi hills formed the limit, and downstream we could see the faint outline of Saint Mountain on the distant horizon. Nearer, towering above our present position and plainly seen in detail, were the Gonsha heights. The lowlands of the Abbai were a maze of brown-tinted valleys and hills. The course of the river itself, deep down in its own ravine, was almost impossible to pick out, except here and there where I recognised some well-marked point seen on my way down. The whole valley looked bare of vegetation, as crops had been harvested and the grass was dry. The general impression was that of the crater of a huge volcano. At all times of the day the valley was veiled in a peculiar blue haze—not attributable to grass fires, which had not yet begun—which added to the appearance of mystery and evil enchantment.

Two days later, on January 28th, Mulu died, in spite of all our efforts to save him. We now had to face a funeral and all the depressing effects his death would leave on everyone's spirits. He was taken to a church not far away and was buried by my men. In the evening I heard the hyenas wailing and drawing nearer and nearer to the

churchyard, and I went to bed early with gruesome thoughts. Fate seemed to have set itself against the expedition.

The missing mail arrived late that night, the delay having been caused by the illness of one of the runners. It was a relief to have the letters and newspapers to take my thoughts off the sad events of the day.

We remained at Waibela awaiting the return of Tahai Dasta with the new mules, and the receipt of another pass from Ras Hailu. The day after Mulu's death news reached the camp that Tarafa, the muleteer, who had left us only a few days before to return to Dangila, had died. He had been subject to malaria, which he had contracted years before through going to Gallabat for the mail during the rains, and I had thought that his illness was only a return of the old complaint. Evidently highland men had every excuse for dreading the Abbai, but it was extraordinary that two strong young men should collapse and die in so short a time. It was all the more mystifying as there were no mosquitoes by the river in January. It will be necessary to find the explanation if journeys along the Abbai Valley are to be made in the future. From this and subsequent experience I think that the best way to avoid tragedies of this kind is to take Sudanese. They should have warm clothing to put on in the evening, and blankets for the night, and they do not mind the noonday heat of the lowlands. The Abyssinian, left to himself, wears one thin cotton shirt and short pants for all occasions, though my own men were provided with a blanket. The difference between the noon and night temperatures is very wide, and when you have to spend the day in the hot valley bottom, and then camp a few hours later in the cold at a high altitude on the slope, it is a severe strain on men who have not a specially strong constitution.

To add to our troubles Turuna Biru, the bird-collector,

had a bad cold which he handed on to me, and I had to spend January 30th in bed with all the symptoms of influenza, sore throat, aching limbs, and a rough, white tongue. We were in a position to move on again when I was well, as Tahai Dasta had at last returned from Mota with five new mules. He came to see me in the evening and told me that all the men were saying that the Abbai journey was difficult and terrifying, and reported that one of Shaka Mangasha's few remaining men was ill. I had been expecting trouble from the men for several days, having had my ear close to the ground, and I had my plans ready to deal with it. For the time being I pointed out that it was only those who had remained in the upper camps who had been ill, whereas those who had been with me on the lowest paths near the Abbai were perfectly fit and well. Nevertheless, with two men dead after we had been following the Abbai for only three weeks, I had to look facts in the face. The men had every reason for being frightened. I for my part could not afford to lose any more men, and could not even replace the two already lost. Tahai Dasta had tried to engage men in Mota, but no one would come. One consequence was that I had to keep the two mail-men for work with the mules and give up the idea of getting any more letters. For the next four months the post-bags accumulated in Gallabat post-office, and I had no news from the outside world.

After another day in bed at Waibela I felt slightly better and was able to think out plans for the future. I decided to see as much as possible of the Abbai from the highlands, to map the valley from the hill-tops (which would, in fact, be much the better way of doing it), and make occasional descents to the river-banks with two small tents and two mules, taking only my Sudan Police and Sudanese cook, and leaving the Abyssinians on the higher levels with the main camp. It was impossible to make any

more definite scheme. The existing maps of the valley were too inaccurate to be useful, and it was hopeless to trust to local information; one could only use one's eyes and act as the country came in sight. The position was, roughly, this. So far 57 miles of the river had been seen. It was twenty-six days since we left Tisisat, only 41 river-miles away, so that we had done only an average of a mile and a half a day. There were 476 miles in front of us if we were to go on to Roseires. We were 246 miles from the first point I must reach if the expedition were to be a success, *i.e.* if we were to reach the point where Jessen abandoned his journey and left the river. At our rate of travel that would take us six months, and there were only February, March, and April left to do it in, possibly only February and March if the rains started early. It was evident that our expedition would gain very little new and useful information about the Blue Nile unless we pushed on faster.

Meanwhile the day brought sufficient troubles of its own. We had something of a food problem, for we had sent to distant villages to buy eggs, without any success, and the milk we bought was curdled. Then I was asked to let the men have their month's pay to send home to their families. I interpreted this as meaning that they would promptly *take* it home, and only let them have three dollars each on account. On February 1st a group of men, headed by Turuna Habasha, approached my tent and announced that they all wanted to return to their homes. They had been told by the people living near the valley that they would all die if they went on any further. Two had already died, and the remainder confessed that they were frightened and wished they had never come. It was difficult to realise that these were the same men who a short time before had been boasting before their womenfolk in Dangila. A stiff upper lip is necessary at such times, and the appearance of a

callousness that I was far from feeling. I threatened any man who might leave me with the loss of his pay, and explained that I was no more anxious to lose men than they were to lose their lives. I told them that I would keep them high up on the sides of the valley, and when I wanted to go down to the Abbai I would not take anyone but the Sudanese with me. I then gave orders that they were to load up and start next morning at dawn, and sent them back to their lines to make preparations.

By morning on the 2nd the tension in the camp had died down and we moved off as usual, much to my relief, our intention being to circle round the mountain district of Inabsai and come back to the Abbai downstream of it.

The two valleys of the Gomit and Tammi Rivers are close together and allow of an interesting comparison, as they are of entirely different types. The Gomit can be seen to take its rise at springs near Waibela, and its valley deepens gradually until by the time it ends at the Abbai, a few miles farther on, the river is running through a ravine with steep cliffs on either side. The Tammi was already in a narrow ravine 1500 feet deep. It rises far away in the Chokai Mountains, flows at ground-level across the high plateau, and pitches over the edge into the deep fissure.

We travelled easily on a grassy plateau, keeping close to the edge of the precipice on the left bank of the Tammi. As we rose we got better views of the Abbai Valley to our east, while to the west the Chokai heights, with peaks up to 13,600 feet above the sea, filled the landscape. Near at hand we were overlooking the gorges of the Tammi and its tributaries, one of which, a small river called the Chuch, could be seen on the right bank at the bottom of a ravine 2 miles wide, 3 miles long, and 2000 feet deep, the size of the stream being out of all proportion to its impressive gorge.

A journey of eight miles brought us to our camp at

Karanyo, close to the Tammi cliffs, here as deep as ever, with a gap of a mile between the brows of the cliffs on either bank. The church of Madhani Alam is perched on the top of the cliff. I walked towards it from the camp and found that we were at the head of the ravine, which ended in a precipitous, semicircular chasm, a mile across and 1000 feet deep, where the Tammi, after its peaceful course over the plateau, appears as an insignificant thin white streak of water falling down the lofty sides.

I had come to the conclusion that we had been the victims of an attack of influenza. I was already convalescent, but the Abyssinians, having little stamina, collapse with pneumonia as soon as it reaches the lungs.

On the following day we covered sixteen miles to Debra Yakob, passing over high undulating downs between 9000 and 10,000 feet above sea-level, with the Yakandach highlands between us and the Abbai, where the ground was more elevated still, the peaks rising to over 12,000 feet. Hitherto I had not questioned the theory that the valley of the Abbai was created by erosion, but now it meant that the river would have had to rise at least 3000 feet since leaving Lake Tana in order to cut its own way through the mountainous Inabsai district round which we were travelling, and as this land is higher than the spring in which the river rises at Gish Abbai it would have had a steady climb for the 150 miles of its journey up to this point. My encounter with the Tammi ravine and its peculiar formation, and with the high levels at Inabsai, gave a severe shock to my belief in the erosion theory as an explanation of the Blue Nile Valley.

We crossed the Tammi at the ford, where it was a small downland stream with low willow-fringed banks only a few feet high, with water 12 feet wide and 6 inches deep, running at a speed of two miles an hour. Within half a mile it went over the cliff and continued its journey in the

bottom of its ravine. For a short distance we found that we were on a high-plateau caravan track, which, after crossing the Tammi, went off to the right to Bichana; our branch road took us past the village of Gumd, with a church on a hill-top. After passing the water-divide of the Tammi we entered land draining to the Chay River, the next Abbai tributary to be dealt with. This soon came in sight about eight miles away. Though we could only see the tops of the cliffs of the precipitous ravine into which it had fallen, it is a sister chasm to that of the Tammi. We were now returning to the Abbai along the left-bank watershed of the Chay.

The guide described a big lake called Bahr Giyorgis as lying three miles to our north-east. It is not shown on any maps, and we did not get a glimpse of it, but the account he gave of it suggests that it is a volcanic lake two miles in diameter; he said that the water had no exit.

From Debra Yakob to Dibo (10 miles), on the 4th, the travelling was easy, the track going over undulating plains thick with flourishing crops of wheat which was being cut and then threshed by the trample of circling oxen. There was also a good deal of *shimbra* or chick-pea, and the villages were numerous and looked prosperous. It was evidently a rich agricultural country. We passed Martola Mariam, with its ancient ruined church on a hill, said to be the oldest in Gojjam, contemporary with, but a little later than, the Cathedral at Aksum. I did not interrupt our journey to see it, as my face was turned towards the Abbai, but it has been visited by Europeans from time to time and I have seen photographs of some fine sculptures on the stone walls which suggest that they were the work of the Portuguese.

It seemed likely that few of the men would escape influenza. The latest victim was Turuna Habasha, who had the same symptoms as the other men. He was very ill and

told me that he thought he was going to die. He was worse next day, which we spent in Dibo, and it would not have surprised me if his fears had been realised. His breathing was very rapid, his tongue was white, and he complained of pain, pointing to the centre of his ribs. It was a day or two before he turned the corner.

While we lay here, I went with my instruments on a tour of inspection. We were on the end of a ridge overhanging the Abbai once more within 25 miles of where we had left it, though a bend in the river brings the actual distance up to 40 miles. Fortunately a bluff of the Yakan-dach range, called Mit Emanuel, appeared again as a conspicuous landmark, and since I had bearings on it from near the Tammi, I was able to connect up my map. Another useful point to be fixed and sketched was the valley of the Bashilo River and its junction with the Abbai, of which there was a good view from Dibo, six miles distant. The precipitous ravines of the Bashilo were known and dreaded even 100 miles away, where caravan men who have to cross it in its upper reaches speak of it with bated breath. It was possible, from the camp, to get bearings and make a considerable correction in the position of its confluence with the Big Abbai. The Donkoro River was also to be seen on the Abbai left bank—another small stream in a big valley.

On the 6th I went down from Dibo camp to the Abbai at Daga ford, eight miles off. The only Abyssinian who accompanied me was Tahai Dasta, who was a man of the highlands near Gondar but had been educated in Khar-toum and had become acclimatised to lower altitudes. The rest of the men were Sudanese, as had been planned. The journey occupied five and a half hours, and we spent the night by the river-bank. The road the whole way was comparatively easy for loaded mules, of which we took three. Though we also took our riding mules, we had to walk and

lead them for the greater part of the journey. After passing a few small villages and patches of tall millet cultivation we dropped to within 600 feet of the Abbai level, and the rest was scrub forest, deserted except for one or two herds of cattle and goats that had been sent down for the grazing. It was hot in the lower valleys where it was shut in from the wind, and an occasional waft of cooler air that seemed to come from the top of the hills was welcome. The shade temperature was 94° Fahrenheit for the last three hours of travel.

When the plateau ended and the descent of the precipitous part began, the track was steep, and when we looked back it seemed impossible that we should ever be able to return. However, we found that good gradients had been chosen and the "corkscrewing" of the path made the going much better than we had expected. When we came to the bottom of the precipice we were 1500 feet down, and now came to a more gradual descent, where villages were plentiful. With our next steep drop of 60 feet we gained the dry bed of a torrent, which we followed for a quarter of an hour, then left it and travelled up and down over small hills until we reached the edge of the real Abbai ravine, where we saw the river deep down between sandstone cliffs on both banks. It will be remembered that at Sabera Dildi the Abbai was still flowing through basalt rocks and was just above the sandstone; now the basalts were high up on the valley-sides, and the river had cut its channel well into the sandstone. Aneroid barometer readings taken at the top and bottom showed the cliffs to be 450 feet high. The surface of the track was thickly strewn with loose rubble, which the mules found difficult, as the round pieces rolled under their feet.

We got a good idea of the depth of the river from a shepherd who was fording it a little upstream from where we made our camp. He chose a ford where the current,

crossing from the right bank to the left, gave a more even depth of water. His height was about 5 feet 9 inches, and the water at the deepest part came up to his arm-pits; although he could keep his feet, his cattle were obliged to swim. I estimated the width of the water at the ford as 120 yards. Opposite our camp the Abbai had a flat boulder-strewn bed 150 yards wide, which would be the river's width in flood. As it was the season of low water, the river ran in a deep channel 30 yards wide along the left bank, where its speed was twelve miles an hour. It was just rippling over a level part of the gravel-bed 120 yards wide, which was flooded to a depth of 6 to 8 inches, the total width of the water there being 150 yards. As the water surface is continuous, the river would look more imposing in a photograph than it really is, by far the greater part of it being of insignificant depth.

Allowance has to be made for a high proportion of loss by evaporation of the Blue Nile water between Lake Tana and Roseires, an important consideration from the point of view of irrigation in the Sudan. The evaporation over 120 yards of these shallows with a sun temperature of 110° Fahrenheit on the rocks must be enormous, and doubt arose in my mind as to whether any appreciable quantity of the water from Lake Tana could have got as far as this, and whether the water I was looking at was not all supplied by the tributaries that we had passed. This was the first evaporating-pan that I had seen on the Abbai, but they are a feature of the river-bed all the way down and were noticed many times afterwards.

The shade temperature of the air an hour before sunset was 90° Fahrenheit; an hour after sunset, 81°; two hours after sunset, 77°; one hour before sunrise, 67°; and the water in the river was also 67°.

Just here there were broad spaces with shady trees along each bank, but half a mile upstream there was the usual

precipice with its base in the water. Natives told us that there was a salt spring at the side of the river downstream of camp, which was covered at high water. A few mosquitoes were heard after sunset, so I slept under a mosquito-net. The next morning we returned to Dibo camp, and on February 8th continued our journey along the heights.

CHAPTER XXI

DIBO TO DEJEN

February 8-23, 1927

FROM Dibo we kept a course almost due south till we came to the precipice of the next right-bank tributary of the Abbai, the Chay River. The ravine in which the Abbai was concealed was visible from our road about five miles away, as we were keeping close to the top of the valley. It was an easy track over gentle undulations at about 8000 feet above sea-level; on all sides wheat was being cut and trodden out by bullocks, and the land was black with cotton soil, which cracks badly in dry weather and is not pleasant to ride over, as mules are apt to put their feet in the bigger crevices and fall. Donkeys, having smaller feet, sometimes get their legs wedged right down in the ground and held there as in a vice. If one can get water to soften the soil round the leg, it can easily be pulled out without damage, but there is seldom a stream close by, and the muleteers have to call for volunteers to sacrifice the precious liquid in their water-bottles.

The width of the Chay River valley was about six to eight miles from cliff-top to cliff-top. When we crossed it we saw that it too was an outrunning chasm from the Abbai, but it differed from the others in having a broad, level expanse at the bottom on each side of the river, altogether about two miles of flat country composed of black cotton soil with many trees and much corn cultivation. We might have taken another and a better route which was much recommended by the local inhabitants, as it avoids the ravine by going round the end of it, but it was many miles

farther from the Abbai. Our climb down the precipice was long and steep, the aneroid barometer showing that we dropped 3600 feet. Our camp was on the Chay River at Nagadbir ford, $11\frac{1}{2}$ miles from Dibo. Here the water was 12 feet across and one foot deep, and the current 3 miles an hour. The bed, up to the high level of the storm-channel, was cut in solid volcanic rock and was 30 yards across at the top. The altitude by aneroid barometer was 4503 feet, and we were five miles from the Abbai, which, according to a calculation from my readings above and below, would be at about 4000 feet.

It is interesting to compare the altitude of the Abbai bed at Sabera Dildi, where we saw the river about to leave the lava and enter the sandstone stratum at 4689 feet, and that of the Chay River flowing in a lava-bed by the camp. One might be inclined to explain the rapid drop that must occur in the Chay's course in the last five miles up to its confluence with the Abbai by its entrance into sandstones underlying the lava near Nagadbir ford, and the rapid erosion of the softer rocks, but I did not see any sandstone to support this conjecture.

By this time most of our invalids had fortunately recovered. Turuna Habasha was much better, had given up all idea of dying, and was able to take his place again as leader of the caravan. Tahai Dasta was the latest victim but managed to carry on.

Our next stage was one of eleven miles to Inogar, and we had the climb out of the valley before us. The path across the valley bottom was level, through flat corn-lands growing *tef* and red pepper, but too low and hot for wheat. Then came the rise up the precipice, which was truly appalling. Four mules fell—one of them rolling over and over twenty feet down the slope—and there were some broken boxes but luckily no broken bones. On reaching the top we found ourselves once more among wheat-fields

almost at the end of a narrow ridge that was part of the high plateau. The ridge separated two chasms, one belonging to the Chay, which we had passed, and the other absorbing the Matiya and other smaller streams, a wide canyon that shows no sign of having been formed by any river action. The view overlooked the Abbai Valley with its numerous outrunnings. Out of the lowlands, called Soma, rose a tumbled mass of gigantic hills and valleys, each one seeming to dwarf the other. The main feature is an isolated flat-topped hill of a remarkable shape that rises out of the lower level to a height of 2000 feet. It is called Soma Ambo, or Imbilati, and many others of the same formation are seen elsewhere in Abyssinia. The sides are tremendously steep, and there is only one path, which a handful of men can defend, so that attack from below and escape from above are equally hopeless undertakings. The flat summits are therefore an ideal place for the confinement of political prisoners, and the Emperors have used them in the past for the safe keeping of all male members of their family who might become claimants to the throne.

We camped beside the Matiya River, a small stream which would never be a big river even in flood. This camp was memorable because we were able to buy a few bunches of green onions grown by irrigation from a small spring near a village. Fresh fruit or vegetables are almost unobtainable in Abyssinia, as they are seldom grown by the villagers, and the few occasions on which they are met with become red-letter days to the traveller.

We now had to go a little out of our way, for news had reached us that Ras Hailu was camping at Bichana, about 20 miles off, and it was both polite and politic to pay him a visit before resuming our journey in the lowlands. We accordingly set out on the 10th and covered just over half the distance to Bichana during the day. The track kept to the edge of the Abbai Valley, and the course of the river

could be picked out about six miles away. Although the water itself was invisible, we could easily tell where it ran by the hill formations and by the brow of the cliffs on either side. The night was spent at Dima, a village that, in comparison with others, is large enough to be called a small town, close to the chasm into which the Gad River falls. We crossed this river next day close to Dima and near the head of the chasm which it enters with a drop of 1800 feet. It was a small stream, one foot wide and two inches deep, with a swift flow over rocks, and does not seem ever to attain any real size. It does not come from the Chokai Mountains, and its course is only short, and altogether it does not appear likely that the chasm could have been eroded by so insignificant a rivulet.

As we approached Bichana a remarkably straight reach of the Abbai came into view. Most of the bends in the river had been less than a mile apart, so that it was an unusual experience to see a stretch of about five miles. We looked along the ravine, which came straight towards us, and then turned at a sharp angle, near which I hoped to descend to the river once more in the course of a few days. Bichana, a small village, but made temporarily of great importance by the presence of Ras Hailu and his court, was perched on a small ridge. Our entrance was not impressive, for not only were the personnel and the caravan much the worse for wear, but both Tahai Dasta and I collapsed as soon as our tents were put up and had to remain in bed, so that the reception by the Ras, always a ceremony of pomp and splendour, had to be postponed for two days. As soon as Ras Hailu heard that we were not well enough to come and see him, he sent gifts of grapes, bananas, limes, and fresh milk, and on this invalid diet we lived and made a rapid recovery. The fruit was brought in daily by runner from Ras Hailu's own gardens, perhaps 50 to 100 miles away.

On February 13th we were well enough to pay the call. The Ras gave us a very friendly greeting and admitted that he was surprised that we had got so far, as he had felt convinced that the first few Abbai precipices we encountered would make us decide upon a prompt retreat to Dangila. He told me that several European travellers who had visited him had expressed a wish to travel along the Abbai valley, and he added with a sly twinkle that he had a special precipice for such visitors with a special guide to show off its most discouraging points. This had always, up to now, had the desired effect. He confessed that when I had first mentioned my wish to follow the river he had written a private letter to Ras Tafari recommending that my project should be discouraged, but since it seemed that nothing would stop me he was now going to give all the help he could.

It was cold in Bichana, which is over 8000 feet above sea-level. The temperatures were: an hour before sunrise, 48° Fahrenheit; an hour after sunset, 53°; three hours after sunrise, 72°; and at noon, 80°. It is difficult for the body to adapt itself to this difference of 32° in a few hours, in addition to the difference between the temperature at this altitude and that of the river valley from which we had come. I was wearing a wool vest with thin shirt, and on top of this I had a sweater, a thick Norfolk jacket, and a British warm; even then it was none too warm out of the sun, and I felt very cold at night.

Among the various presents of food sent by Ras Hailu was a partridge-like bird called a francolin. It was just going to the cook when I noticed that its plumage differed from that of the more common kinds of francolin, and sent it to the bird-skinner instead. When it eventually arrived at the Natural History Museum, it was found to belong to a rare species, Harwood's Francolin, of which only one skin was known, and that was the type from

which the species had been named.

By February 15th we had all recovered from our various complaints, and Ras Hailu came in the evening to say good-bye. We left Bichana next morning to return in as straight a line as possible to the nearest point on the Big Abbai. Even the small spring beside our camp in Bichana, which trickled down a shallow fold in the ground, had an enormous chasm waiting for it a short distance away, into which it fell. We soon reached this and kept along the right bank near the cliff edge for about nine miles, eventually arriving at the end of a ridge, where there was a village belonging to the Baranta district, and a small stream, the Shita, which rises on the ridge and falls over the cliff. During the evening we had a heavy shower, the first rain that had fallen on us since we had left Dangila. In this camp we had to wait one day for Tahai Dasta, who had asked to remain behind in Bichana for a few hours to see some friends. Night fell, and as he had not arrived I was anxious. He came in the next morning drenched to the skin. He had delayed his departure, and had been caught by the darkness before he had gone far. Through taking the wrong turning he had arrived on the wrong side of the chasm and had spent the night wandering about in the rain.

There was more heavy rain for an hour during the night of the 17th, and the surface of the road was very sticky when we set out again for the river. We left camp by moonlight in order to save the mules travelling in the heat of the day. The altitude at the edge of the precipice at the head of the Shita ridge was over 8000 feet, and the Big Abbai water-level, taken by boiling-point thermometer, was 4300 feet above sea-level, so we had to descend about 4000 feet. The track proved to be easy compared with others we had known, as good gradients had been taken on the steeper parts. We kept a course along the ridge

towards the rising sun, and when the edge of the escarpment was reached the Abbai water was visible below us, about three miles away. The river at this point was no longer hidden in a precipitous ravine, and we got the best and most open vista of it that we had so far obtained from high-plateau levels. The air, however, was by no means clear, and a foggy atmosphere made the taking of compass-bearings difficult. On reaching the bottom of the first precipice we hurried along down easier descents among plenty of crops and villages at first, but afterwards through uninhabited country, and so to the river-bank, where we camped, having done eight miles from Shita. A short distance upstream we found Malka Dibo, or Dibo Ford. The water was 150 yards wide and was just above a man's knees at the deepest part. We saw two men cross, and the depth was fairly even all the way over. Our guide told us that there is a track that would be possible for loaded mules from here to Soma and on to the Chay River, which keeps close to the Abbai, but not along the banks. It seemed possible that we might have come by it had we heard of it before, but one cannot judge of the conditions merely from local information. He also said that there was a track going downstream to Shabal, but it was only used by people travelling on foot.

The hills of the Abbai Valley were visible for twelve miles upstream, but the water could only be seen for half a mile where it came round a bend; downstream the valley could be seen for six miles. A notable change in the scenery was the absence of the familiar steep cliffs with their base in the water. Half a mile downstream of our camp we came to a hippopotamus pool in the river-bed 300 yards wide. It seemed to extend for a mile or two, and I saw eight hippopotami together—there may have been more—while there was another party of them in a pool half a mile upstream. Both lots grunted their disapproval

of our presence all night. This was the first time that we had seen any of these animals since we left the lagoon above Tisisat Falls, and it seemed to indicate that the river was now flowing more evenly on a more level bed. The current through the pools was sluggish, and they were obviously of considerable depth, for the great beasts dived out of sight as we came in view and little was seen of them but an occasional nose and nostril as they came up to breathe.

Mosquitoes and sandfly were troublesome in this camp. We returned to Shita the next morning, and as the air was clearer a compass-bearing was obtained on a mountain mass that had now come in sight, the highest point of Fiche, 49 miles away on the left bank of the Abbai and half-way to Addis Ababa.

From Shita we set out on the 20th along a path at high-plateau level, skirting the main chasm of the Abbai. We had to return on our tracks to the base of the ridge on which we had been for the last three days, as it was shut in to the north, south, and east by precipices. I had intended to go on to Shabal, the next ridge, but we learned from villagers met on the road that it also was too precipice-bound on three sides and that the caravan would have to come out by the way it went in. We therefore decided to camp at the base, where the Suha River goes over the precipice into the ravine that divides the two ridges of Shabal and Gubaya. The Suha was a swift-flowing stream with water 4 feet wide and 2 feet deep.

Just after the tents were pitched a thunderstorm broke overhead, followed by heavy showers. It seemed that we were going to have early rains to add to our other troubles. This would affect us adversely in two ways. In the first place, when we went down to the Abbai travelling as light as possible, the men slept in the open, but rain would compel us to load more tents; and later it would mean that

mosquitoes and horse-flies would be starting in March, just when I hoped to be descending into the lowlands towards the Sudan frontier, and the Abyssinians would be frightened to go on.

From information gathered locally I learned that the Gubaya ridge or tongue of highland country jutting out into the Abbai valley was waterless, so as it was useless to take the pack-mules on to it I decided to leave them at the Suha and give them a day's rest on the 21st while I went out to the end of the ridge on a reconnaissance. The land about us as we rode along was covered with wheat, millet (*tef*), and chick-pea (*shimbra*) crops, some standing ready for the sickle, which throughout the greater part of Abyssinia is a small circular blade with a saw-like edge and a wooden handle, while in other fields they were being cut, then trodden out by bullocks. Below us on the upper terraces of the Abbai ravine there were also villages and crops, and we looked right down on the top of them. Water on the top of the ridge was scarce in February. We passed only one stream, the Kok Waha, and this was not flowing but had pools that last through the dry season, at which the cattle drink, while the villagers depend on a few wells.

I enquired of local men about the ford across the Abbai at the end of Shabal. They described it as having an approach that is difficult for loaded mules and used almost entirely by people on foot, and said that the water would be up to a man's waist.

At our turning-point, about eight miles from camp, I was able to make a sketch of the Jamma River valley at its confluence just opposite us with the Abbai. The Jamma is a big left-bank tributary in a huge valley of its own that drains a country to the north of Addis Ababa. On the side of this valley overlooking the upper reaches of the Jamma is Debra Libanos, the famous monastery of the Abyssinian

saint and monk, Takla Haimanot.

We then returned without incident to the Suha, and the caravan pushed on next day over thirteen miles, thanks to level going on a trade road which just skirts the edge of the Abbai Valley. In this region the outrunning ravines of tributaries did not extend so far from the Abbai as those we had passed elsewhere, so we were able to keep nearer to the Abbai and could see the main ravine down in the valley for most of the way. We crossed the Mugar River (not to be confused with the Mugr River, the big left-bank tributary that we were to see later), 14 feet across and 3 feet deep, with a current of 2 miles an hour. On our right it was like a downland stream, on our left it descended to the Abbai in a moderately steep-sided chasm. We halted for the night at Dejen, a small village on the edge of the Abbai ravine. Here the caravan route which provides the most direct road from Gojjam to Addis Ababa, and is consequently much used, crosses the Blue Nile.

CHAPTER XXII

SHAFARTAK FORD

1927, 1929, 1933

SHAFARTAK FORD, where the caravans cross the Abbai, is perhaps sufficiently noteworthy to deserve a chapter to itself, and it is certainly capable of providing the traveller with excitement enough for several. I did not cross it on this first visit, on February 24th, 1927, but my official journeys to Addis Ababa took me over it in the May of that year, in May 1929, and in May 1933, and it will be convenient to collect here the notes of my experiences on all four occasions.

On the first visit, then, we left the camp standing in Dejen at the top of the escarpment and went down the main road to the ford. It is hard to avoid using the word 'road', but in reality it was no more than a rough mule-track down steep slopes, used by merchants and their caravans of pack-horses, mules, and donkeys, taking coffee, beeswax, or hides to Addis Ababa. These caravans usually tackle the crossing in three stages, making their first halt at Inadajir, a spring some way down the valley on the way to the ford. Next day they start at dawn, cross the Abbai, and camp half-way up the opposite bank by a small spring called Bidesa; from there the rise to the high plateau in Jarso is an easy journey for the third day. This plan avoids spending a night at low altitudes, which the men dread, in the forests by the river where there is no grazing for the mules. The fording of the Abbai is never an easy matter, and signs of anxiety were always to be seen on the faces of the men and women who were setting out to cross.

We made the descent in just over four hours, during which we dropped from 8370 to 3729 feet. The Abbai was now nearly a mile deep in its canyon, and a good deal more than that if we take the summits of the mountains that lie back from the rim of the canyon as representing the real limit of its walls. The river itself is hidden until you come to the top of reddish-yellow sandstone cliffs, 700 feet high. The tops of the cliffs on the right bank are only 700 yards from those on the left bank. In addition to being the steepest descent of any on the valley slopes, this final scramble down the cliff path to the river shore is very narrow, and it often happens that a big caravan of loaded mules meets another caravan with equally bulky loads coming in the opposite direction. The confusion and the bumping that follows can be imagined. The track, which is barely wide enough for one animal, becomes completely blocked with a seemingly endless row of horses, mules, and donkeys facing in different directions, most of them standing still for fear of being pushed over the side, while muleteers shout themselves hoarse in the effort to extricate their own animals.

The ford is 180 yards wide, and the caravans cross where the current goes over from the right to the left bank. On this occasion the water was one foot to 18 inches deep for the first 80 yards; in the middle it came up to a man's armpits, and it became shallow again quite close to the left bank. A stick thrown in took sixty seconds to travel fifty paces. Below the ford there were rapids, and as its course is winding the river goes out of sight round a corner within a quarter of a mile both up and down stream.

The Abbai bed had here reached a level at which the fall was considerably reduced in comparison with the reaches that we had seen. The level of the ford at Dibo in Baranta district, 3763 feet, shows that there is only a slight difference in the water-level, and Shafartak was the

first place that suggested itself as at all possible for a dam. The cliffs would provide a foundation for the abutments each side, but surveys of the district would have to be carried out by an engineer before one could say whether it would store sufficient water to make a dam worth while. It was not possible to decide how far excavation in the river-bed would be necessary to find solid rock for the foundations and get below the loose pebbles and boulders over which the mules blunder and stumble as they wade across.

At one of the pools I saw several big crocodiles and heard the bellowing of hippopotami. When a caravan approaches, its leading men fire off rifles near the ford to frighten the crocodiles from that part of the river. The speed with which a crocodile can travel is amazing. My men once drew my attention to one that was passing under water in the middle of the Abbai and against the stream, and had they not suggested what was causing the slight ripple on the surface that was travelling at such a pace it would not have occurred to me that any living thing could move so fast in the water, and I should have put it down to a peculiar form of wind eddy. We all stood fascinated and watched it till it was out of sight.

The Egyptian Plover was seen here for the first time, a little bird that is associated with sand-banks on the lower reaches of the Nile. It was never seen on the high plateau, and its presence was an indication of a change in the character of the river.

An official told me that there was a track used by men travelling on foot, but impossible for donkeys, leading from Shafartak to Gubaya and Shabal. He said that it kept near to the Abbai but did not follow the river, and that there was a similar track downstream to Zemmi and Jiballa.

I made my second acquaintance with Shafartak, and

my first crossing of the ford, three months later, on May 22nd, 1927. The mules took four and a half minutes to get from shore to shore, going at a slow walk, for they had to feel their way among loose boulders. At the deepest part the water was two inches above a mule's hocks. This time it came just above a man's knees, which emphasised the river's rapid fall in volume, for in the previous February it had come up to his armpits.

Two years later, on May 29th, 1929, the crossing was a more adventurous undertaking. There had been heavy rain in the valley of one of the tributaries, and, as is always liable to happen, the river came down in spate without warning just as we reached it. Already high, it suddenly rose further, and no mule could cross without swimming. We did not, of course, know this, as the merchants who were ahead of us had crossed without difficulty. My men took the caravan into the water as they had done before, and the first intimation that something was wrong came when the leading mules and men were seen to be in difficulties. Mules were plunging and being swept off their feet, and the men, unable to hold them, were in danger of being carried downstream to the rapids, where they would have had little chance, and below these was the pool where the big crocodiles wait. I shouted to the men to return, but in the sound of rushing waters I could hardly hear my own voice, and my own mule was already swimming under me. I managed to swim him out and head off the leaders, and so got them all back to the bank. The contents of the boxes on the loads were already soaked, and even we who were riding were wet to the waist, so there seemed little to be gained by camping and perhaps getting wet again the next day. There was a possibility that the river might fall; on the other hand, with the approach of the rainy season, it might rise and not go down again. When the seasonal rise takes place *jendies*, or skins, can be hired at Dejen, and

in these the mule-packs are wrapped and floated over, guided and pushed by trained local swimmers, while the mules, relieved of their saddles and loads, swim over without much trouble.

On this occasion, however, the authorities had been taken by surprise. The swimmers were down by the river, but the *jendies* were six hours away on the mountain-top, and even if they had been sent for they would not have been down till the next day. I eventually decided to pay the local men to swim our mules over with their packs on. Twelve men took us across, three mules at a time, four men swimming at the head of each mule, two on each side. The mules seemed determined to take the line of least resistance and be carried downstream, and it took all the resources and strength of the four men to keep their heads towards the bank. The only men who rode over were myself, the Sudan police, the interpreter, and the cook, and we were saturated too. The cook, Khetam, got wetter than most of us, as his mule stumbled, and he dived over its head into the surging torrent. He was a strong swimmer and appeared again at once. The boxes on the pack-animals acted as floats on each side, and since they had not been made to stand anything of this kind, water poured from them as each mule arrived panting on the bank. My camera, which had been slung on a policeman's shoulder, was full of water, and I was robbed of an opportunity of taking some very unusual photographs. I was particularly amused to see the wooden case in which the typewriter had come over; like the rest of the boxes it was spurting out streams of water from every crevice, while across the front a notice "KEEP DRY" was stencilled in big letters.

The speed of the water was about five miles an hour, and it came up to a man's breast. Only trained men could have stood against it, let alone guide a mule and regain their feet once they had overbalanced, as frequently

happened. I timed mules crossing, and from the time they were led into the water till they walked out on the left bank it took 2 minutes 11 seconds. The whole operation of getting the caravan over occupied four hours. Before we started, some merchants with four hundred mules loaded with goods had arrived on the bank, intending to follow us, but having watched our struggling mules they changed their plans and decided to camp.

We went on to Bidesa, where the rest of the day was spent in taking everything out and drying it in the sun. A lot of damage had been done to clothing and goods by the water, but the only thing the crocodiles got was a parcel of old felt saddle *numnahs* tasting of mule.

In May 1933, when I last saw Shafartak, a transformation had taken place. The Abyssinian Government had decided to build a track for motor-cars from Addis Ababa to Debra Markos. It had previously been roughly cleared of rocks as far as the Abbai canyon, but the crossing of the eighteen miles of valley a mile deep, and the passage of the river itself, had been beyond local talent. In the spring of 1933 a Greek builder had been sent from Addis Ababa to find and mark the road on both banks, choosing suitable gradients for motor traffic, and Ras Kasa, the Governor of Salale province, had been given instructions to construct the road on the left bank, while Ras Imaru, the new Governor of Gojjam in succession to Ras Hailu, who had been deposed and imprisoned, was made responsible for the work on the right bank. The progress that had been made in three months amazed me. Although it was not completed I rode down miles of roadway along which a car could travel, where previously I had had to dismount from my mule and walk. To avoid steep slopes the track curled about and back again so that it was at least three times longer than the original caravan road. At the river a flying pontoon had been constructed. A wire cable was

stretched from bank to bank high above the water, and on this ran a pulley attached to another long cable that was fixed to the bow of a raft floating on empty oil-drums and carrying a wooden platform big enough to take a motor-lorry. Two ropes connected the raft with windlasses on both banks, so that men on either bank could wind it to and fro across the water.

The work on the road was being held up, as the supply of dynamite had run out and there were big rocks that required blasting on some of the cliffs. The labour was found by putting sections in charge of local chieftains, who were responsible for their completion. I passed several of these quaint old squires and spoke with them. They confessed that neither they nor their men had any previous knowledge of road-making, and many of their men had never seen a road. The only touch of modern engineering equipment that I saw was that most of the chieftains sported a pair of field-glasses slung over the shoulders. I asked one of them how many of his men were working on his section and he replied: "Who can say? There are thousands, but some return to their farms to plough and others take their place and the work goes on." As spades and pick-axes could not be procured the excavating had been done with ploughshares. The novelty of the work, and the expectation that when the road was completed motor-cars would be arriving from Addis Ababa, kept them all cheerful. I pointed out that the gullies crossing the line of the road had not been bridged, and that during the rainy season parts of it would be washed away, and they replied that after the rains the road could be repaired with little trouble or expense.

They asked me to look at the river and give my opinion whether a masonry bridge could be constructed to replace the pontoon. Unfortunately I could not give them much encouragement. The river-bed is wide there, and although

a bridge could, of course, be made, the bed of loose shingle would necessitate a very expensive one with many arches and supporting piers in the water, and it was not certain how far the foundations would have to be carried down to rest, as they must, on solid rock. I had seen a much better bridge site lower down below Zemmi, where the river could be bridged in one span without piers. Up to the time I left Abyssinia, nearly a year afterwards, I had not heard that any motor-car had crossed the river and reached Debra Markos from Addis Ababa travelling under its own power.

Fossils, which are helpful in arriving at decisions on geological age, are rare in the rocks of the Blue Nile valley, so the finding of a fossilised shell near Bidesa between Shafartak and the top of the canyon is of more than usual interest. It has been identified as *PHOLADOMYA URATA* (J. SOW), period Middle JURASSIC.

CHAPTER XXIII

DEJEN TO ZEMMI

February 25-28, 1927

HERE we take up once more the story of the 1927 reconnaissance at February 25th, when we left Shafartak and returned to Dejen camp, moving on next day to a place called Kutai Giyorgis. This was a circular journey of fifteen miles on the high plateau in order to get round the next outrunning ravine, that of the Bachet, which we crossed at its end, where the river falls into it. The Bachet comes from the Chokai Mountains, and where we forded it the water was 4 feet wide and 9 inches deep, with a speed of three miles an hour. The chasm is not so steep-sided as others we had passed, but becomes three miles wide within a short distance. From our high elevation we looked down on many villages and cornfields on the slopes and terraces of the sides. The top of the cliffs of the Abbai ravine was plainly visible running at right angles to the Bachet at the junction of the two rivers.

The great valley of the Mugr River came in sight on the left bank of the Abbai, forming a huge gash in the landscape. The upper reaches and tributaries of the Mugr are better known, for they drain the northern slope of Intoto, the mountain ridge that overhangs Addis Ababa.

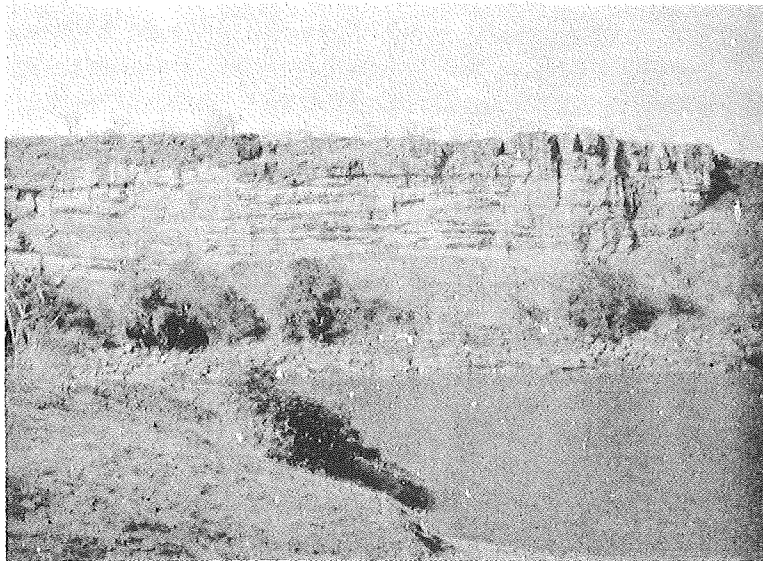
I had to make considerable corrections to the rivers shown on previous maps of the country through which we were travelling, and at the point we had reached I found that the Bogana is not joined by the Yeda, nor is it an alternative name for the Abaya, which we crossed, an entirely distinct small stream which was then dry. We

camped beside the Bogana itself, about a mile from the place where it fell into the ravine.

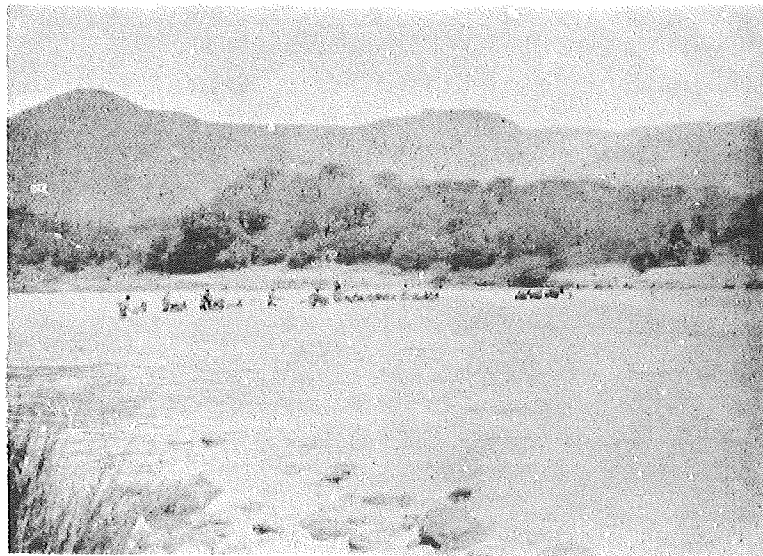
The weather had been unpleasant for some weeks. Showers of rain fell every day, and at night the sky was cloudy and hid the stars, so that star observations, which I needed in order to obtain the latitude of my position, were out of the question. In addition, a high wind that seemed bitterly cold blew everything about, including our tents. The rain was local, for when we returned to Dangila in April and remarked to the farmers that they must have had a wet spring, we heard that they had had no rain since we left, the first welcome shower descending the day of my arrival. There is a superstition in Gojjam that the appearance of a European in a district is a sign of rain, and in this year it certainly seemed that the rain-clouds had followed me round. The villagers also believe that a white man possesses the knowledge to enable him to produce rain at will.

Leaving Kutai Giyorgis on the 27th, we travelled close to the edge of the Abbai Valley and were continually obtaining views of some of the grandest and wildest scenery that could be imagined. The course of the Abbai was marked in the early hours of the morning by a curving line of fleecy white cloud, like cotton-wool, suspended over it 1000 feet above the water and yet thousands of feet below us. Before long we crossed another river, the Gatla, close to its fall over the precipice of its ravine. The Bogana and Abaya join the Gatla on the left bank down in its ravine, where we could see the separate ravines and mouths of the two rivers. The three rivers united then continue to the Abbai under the name of the Wabas.

After eleven miles we came to Kork, where I had to choose between two plans—either to go to a small, unfrequented ford of the Abbai below Kork, or to leave that out and continue to Zemmi, where there were reported to be two



BLUE NILE NEAR BALATI FORD, BELOW KORK



KALO FORD, BLUE NILE, BELOW ZEMMI (p. 300)

frequented fords. There was not time to do all three fords, so I chose the first, on the ground that as the others were on known routes some European had almost certainly crossed them and left some account of them. Afterwards it happened that my official journeys took me twice to Zemmi, so that I was given the opportunity of filling in the gap by surveys of the Zemmi-Gindabret route across the Abbai with my own instruments.

Kork church stands on the edge of the precipice, and from it we obtained a most extensive view of the Abbai Valley, including the great highland districts on the left bank, Jarso, Gindabret, and Gudru, each one divided from the other by the stupendous canyons of the Jamma, Muqr, and Gudr Rivers. The right-bank bluffs of Dejen and Kanbuat were also seen in echelon. The Abbai itself was not in a ravine here, the valley bottom being shallow, and miles of its water and both banks and the confluence of the Muqr were laid out before us like a photograph from an aeroplane.

Balati, the ford for which we duly set out on the 28th, was $13\frac{1}{2}$ miles from Kork, and the track we followed was not much used, except at certain seasons of the year by cattle being driven from the highlands to graze. Merchants do not travel by this route, as the fords below Dejen and Zemmi are better, and the approaches are more efficiently policed. The local Government official at Kork sent an armed escort with us lest we should meet with robber bands. The path had at any rate the merit of taking easy gradients and was not nearly so difficult as other descents we had made to the Abbai. The guide told us, however, that the rise on the left bank to Gindabret was very bad indeed. The drop from Kork to the water's edge was 4678 feet by aneroid barometer. Villages were only passed in the first thousand feet of the descent, and our track lay mostly through forest. When we were a mile from the

river we passed the pool of a salt spring in a dry torrent-bed, to which cattle are driven periodically from the highlands to drink the saline water. It was made conspicuous by a thick salt incrustation and was obviously much frequented by hippopotami, which had left great footmarks, now baked in the dry mud. Here our guide lost his way, and we finished the journey by taking a direct line for the river, using hippopotamus paths for the last half-mile; they were thickly overgrown by thorny bushes which did a good deal of damage to the tents loaded on our mules. For this kind of travel all tents should be packed in native bags of tanned bullock-skin, which are inexpensive, very effective, and do not add much to the weight. We did not waste time in looking for the regular track and ford, as this part of the river suited my purpose equally well. We were close to the confluence of the Muger River, though I omitted to find out whether we were upstream or downstream of it.

Soon after our arrival at the Abbai, the man in charge of the escort reported that he had seen thirty *shiftas* or highwaymen approaching on the opposite bank of the river. I was glad to give the guard some occupation to get them out of the way, so I sent them off to catch the robbers. The headman of the escort carried an Abyssinian horn like a hunting-horn, the symbol of officialdom, and we heard him blowing it in the distance, and then peace reigned for a time, suddenly broken by rifle fire. When they ultimately returned we learned that the alleged robbers had turned out to be a wedding party taking the bride to the bridegroom in a distant village. The guard had merely fired to scare crocodiles on reaching the river, and had then crossed downstream of the camp. It appears that the Abbai is fordable anywhere in this neighbourhood in February, except at the pools.

I was pleased to be able to describe the Big Abbai as a

big river again, flowing in a more level bed. The water opposite our camp was a deep and tranquil pool, full of hippopotami, with a foreshore on both banks composed of deep sand. Upstream I saw rapids, but the fall was slight and there was not much broken water. On both right and left bank were large areas of flat forest not much above high-water level, and the left bank was a cliff of yellow sandstone 200 feet high. The Abbai was running in a zigzag course with half a mile to each turn, which could only be shown on large-scale maps. The water at the deep rapid, where there seemed to be no rocks, was 80 yards wide, with a current speed of six miles an hour; the flood limit was 18 feet higher than the present water-level. The evaporation shallows along the sides, which I noticed where the shores were pebbly, were absent at Balati, their place being taken by several deep backwaters shut in by sand-banks. The bed of the river had obviously got down into a stratum of soft sand.

A dam built here would store water much farther back than at previous places that I had seen, owing to the slight fall in the bed. A barrier over 18 feet high would in addition flood an extensive tract of low-lying forest. It was not perhaps an ideal place, but the river was certainly becoming more suitable for works of that kind. Half a mile below the camp the sandstone cliffs were 500 yards apart and 100 feet high. A sample of the rock scattered plentifully about, which sparkles in the sun, was identified as biotite-schist.

In the evening the Yellow-throated Sandgrouse were heard for the first time. They are not a bird of the highlands but live in the scrub forest of the lowlands. Parties of them came to drink about half an hour after sunset, when their whistling call rang out along the river-banks and their fast-flying forms could be seen darting between the trees in the dying light. They came again at dawn, but were seldom to be seen or heard during the day. The

crocodiles here were treated with an unusual amount of respect, for no one went to draw water without first throwing in stones to scare them. I saw one big one floating like a log in midstream and watching us with his evil eye, and there also were four hippopotami. We had three hours of rain during the night and an inch of water must have fallen.

Here I must interrupt the 1927 narrative once more to give an account of the later visits to the ford near Zemmi which have been mentioned above, and of an expedition to the scene of an almost forgotten attempt to bridge the Blue Nile.

CHAPTER XXIV

CASTANIO'S BRIDGE AT TATESO

May 11-16, 1930; November 1933

IN 1927, as we were on our way from Kork, the guide was rambling on about village politics after the manner of his kind, when I was roused to interest by his mention of a bridge in an uninhabited part of the forest below Zemmi. In neither books nor maps nor conversation had I ever seen or heard such a bridge mentioned, and the guide himself was vague as to its whereabouts. He only knew that it was not on any of the regular cross-Abbaï routes. Subsequent enquiries disclosed that it was not, as I had suspected, a ruined bridge of Portuguese origin, but was of more recent date, being attributed to the reign of the second Menelik. That was all I was to learn at the time, but the story I eventually unravelled bit by bit after enquiries from all sources, including Addis Ababa, extending over a year, is worth recording.

In the reign of Menelik some thirty years ago an Italian working engineer named Signor Castanio was commissioned by the Emperor to build a bridge over the Blue Nile between Gindabret and Zemmi, which would have connected Addis Ababa by road with the rich and powerful province of Gojjam. The Blue Nile was a formidable frontier, and it is conceivable that the people of Gojjam were not as enthusiastic over a bridge which would weaken their power and join them to the people of the province of Shoa, in which was Addis Ababa, as the latter were. Castanio, whom I subsequently met in Addis Ababa, for he still worked for the Abyssinian Government, and had grown old in

its service, got out his plans for the bridge, so it is said, and for the massive girders to span the river, which were ordered from a Milan firm and paid for. While awaiting their arrival he started for the Abbai canyon, a ten-days journey by mule from Addis Ababa, to build the masonry. Having completed the abutments on both banks, a feat requiring no small amount of skill, endurance, and patience, he returned to Addis Ababa for the ironwork and learned that it had been lost between Jibuti and Addis Ababa. One would scarcely think the ironwork of a bridge an easy thing to lose, but the story goes that there was no trace of it, and another set was ordered from the Milan firm and duly paid for. It arrived safely in Jibuti, and like the first consignment, was lost between there and Addis Ababa. The enterprise evidently did not survive this marked discouragement, for since then the bridge and everything connected with it had been completely forgotten.

This was all that I was able to discover until the spring of 1930, when I left Addis Ababa to go to Dangila on my return from leave, and chose the route by Zemmi, determined that I would at least find out if this unfinished bridge existed, which I began to doubt. I made enquiries on arriving at Gindabret, the highlands overlooking the Big Abbai canyon, where I hoped to get down to the bridge from the left bank. Local people had a vague idea that there was a bridge about two days' journey down the valley side, but the track was little used as it led nowhere and was a day's journey from the main caravan road crossing the Abbai at Kalo, the usual route used by Gindabret caravans that wanted to go to Gojjam. At last a man was found who said that he had actually seen the bridge. I promised him good pay on results if he would take us there, but an hour after we had started out he deserted. So I decided to cross the Abbai at Kalo Ford, one of those which had been mentioned to me in 1927,

where I wanted to get the altitude of the water-level to complete my set of readings of the Blue Nile, and make a fresh attempt to get down to the bridge from Zemmi on the right bank.

The descent from Gindabret on the main Kalo-Zemmi track on May 11th gave a wonderful panorama, with the Abbai Valley low in the foreground and the separate bluffs of the high plateau running out into the canyon for a range of 70 miles. The first precipice we went down was a cliff of basalt rocks, and this continued for the first 1500 feet, and then the rest of the way to the Abbai was over sandstone. There were, we were told, three fords within two miles of one another: Furi and Kuki, which were both out of use, and Kalo, which had replaced them, the one by which Gojjam and Addis Ababa merchants cross, although, as I have said, most of the traders prefer the Dejen road which crosses the river at Shafartak.

As we got down to the last descents to the Abbai we looked over a long reach of the river and could see the site of the fords. There was a small cataract downstream of Furi, and a shingle island in midstream between Furi and Kuki. As the river was low, another cataract came between Kuki and Kalo, and at Kalo there was another shingle island which we passed over in making the crossing later. Six miles downstream of the ford we could see one of the toes of the Zemmi hill on the right bank running down to meet a similar toe of the Gindabret Hills on the left bank. A narrow cleft divides them, through which the Abbai squeezes, and there, beyond all question, was the site of the bridge. Although the top of the narrow cleft looked very close, there was no way of getting down the six miles of tumbled mountain slopes from Kalo, except through trackless forest only possible for a man travelling on foot. The only thing to do was to go first to Zemmi and hope to find some sort of a track from there to the bridge.

At Kalo Ford the main channel was about 150 yards wide, and the speed of the current four miles an hour. The island of boulders and shingle was 20 yards wide, and close to the right bank there was a further 50 yards of shallows six inches deep but running swiftly. The gravel foreshore on the left bank was 30 yards wide, and the high flood mark could be noted as 18 feet above the present water-level. Steep-sided soft sand-banks about 18 feet high lined the right bank; behind these were cliffs of sandstone 30 feet high. A mule took 3 minutes 30 seconds to ford the main channel and covered the distance from bank to bank in 11 minutes.

I tried to gauge the depth of water accurately by means of a stick from which each alternate foot of the bark had been peeled, so that it showed the measure in dark and white rings. I went across on my mule while the man who led it plunged the stick in and took a sounding every ten yards, as near as I could judge. It was not easy in practice, as the bed of the river was made very uneven by loose pebbles. We were nearly swept aside twice when the mule gave a lurch, and my boots were filled with water at an early stage of the proceedings. Altogether it was rather a task to note down the results in legible figures. However, I found that at the first ten yards there was 1 foot of water; at the second ten yards, 1 foot; third, $2\frac{1}{2}$ feet; fourth, $2\frac{1}{2}$ feet; fifth, 2 feet; sixth, $1\frac{1}{2}$ feet; seventh, $1\frac{1}{2}$ feet; eighth, 1 foot, and ninth, 6 inches.

While we were at the ford we witnessed a primitive scene when some merchants who had come down with their mules to cross waited while one of their party dragged a goat down to the water and slaughtered it in order to conciliate the spirit of the river. It seemed an unnecessary precaution with the river so low, but superstition is strong, and the party undoubtedly reached the other bank in safety.

Our tents were pitched under big tamarind trees that gave very welcome shade, as they were in full leaf while most other forest trees were bare of foliage and would remain so until a month or two later. During the evening my collector came in with a specimen of Harwood's Francolin, a rare bird of the partridge family. The first I had seen was the one given to me by Ras Hailu, and this was the second in my collection, and actually only the third specimen that had ever been obtained. Throughout the night one heard the notes of the tiny Scops Owls that live in great numbers in the tamarinds lining the banks of the river. The call exactly resembles the tinkling of a little brass bell.

The next morning we climbed up the valley side to the 6000-foot level, where we camped near the village of Zemmi.

Our cautious enquiries for someone who could lead us to the bridge were at last successful, and we found a man who seemed to know the way. It appeared that the Abyssinian telephone line from Addis Ababa to Debra Markos crossed the Abbai near the bridge site, and our prospective guide said that he had once accompanied the men who were repairing the line. He was a keen fisherman, and I won him by the offer to supply him with hooks and give him a day's fishing on the Abbai.

I may mention in passing that our search for information had not been made any easier by the fact that several places on the Abbai have two names. It took me some time to discover, for example, that Kutai and Gindabret were one and the same district; Gojjam men called it Kutai, while Gindabret men spoke of it as Gindabret. On the left bank the name given to the site of the bridge was Tateso, whereas the Zemmi men said that it was Algi.

Starting out on May 13th, we left the Zemmi level and dropped down into the valley of the Yeda River. The track

was overgrown and difficult to find, and there were steep zigzagging descents of loose pebbles, so that we had to walk most of the way. When we reached the bottom of the slope the going was more level, and although the track now disappeared altogether we kept on down the valley, through scrub forest with occasional patches of cotton cultivated by people who live far away on the distant hills. As we approached the last descent to the Abbai ravine we came upon the first evidence of the proximity of the bridge, when we passed a deserted quarry with heaps of shaped and squared rocks standing there just as the masons had left them thirty years before. The next sign of civilisation was the telephone wire, which was propped on branches of trees and rocks where the lichen-covered poles were missing, and had no insulators even where there were poles. I had always been under the impression that no wire would convey a message unless all places of contact were properly insulated, so out of curiosity, on my return to Zemmi where there was a telephone office, I determined to test this line and sent a message by it to the British Legation at Addis Ababa. Much to my surprise, the reply was handed to me the next day.

The telephone was first introduced into Abyssinia by the Emperor Menelik, who had it extended to some of his outlying provinces. The sending of a message is not the easy matter that might be supposed. In the first place the operators know no language but their own. An English message is first translated into simple Amharic sentences and written down and sent to the operator. If there are no breakdowns on the line, he rings up the clerk at the next station, perhaps twenty miles away, and tells him what the message is, and he in his turn passes on what he remembers of it to the next man, so that after four or five relays the sense has very frequently suffered considerable alteration. A telegraph system would have been no use in the country

districts as the operators are scarcely literate and know no Morse.

The last descent to the bridge site is about 800 feet and is very steep. There seemed to be no road approaching the bridge on either bank, and the slope on the right bank was so abrupt that it was difficult to walk down it without slipping. Here we found the only signs that workmen had ever been there, in the shape of a heap of old kerosene tins with cement inside, a well-built and capacious oven made of rock, that might have served a baker's requirements, and a few hollows in the ground where lime had been mixed. When we reached the actual site, I was greatly astonished to find in this wild out-of-the-way place a substantial masonry abutment on both banks that might have been built for a river in a European city, made of rectangular blocks of granite grouted in with mortar, faced with well-shaped granite blocks laid in cement, both cement and lime being in excellent condition. It only required the ironwork to join the right and left banks of the river by a road 30 feet wide. The structure seemed to be waiting patiently to be completed, as it had waited for nearly thirty years. The abutments were built on solid rock on both sides, and the span between them was 279 feet. The foundations were 40 feet above the water, and the high-water mark came 10 feet above the foundations. Fixed in the masonry were the ends of wire cables, and the guide said that during the time when the work was in progress they were used for pulling a truck over the river. According to him this arrangement had been left in going order, and natives used it for a few years to pull themselves over, until one day the cable broke, precipitating the passengers and the truck into the river. Luckily they were all swimmers and reached the shore little the worse for their high dive.

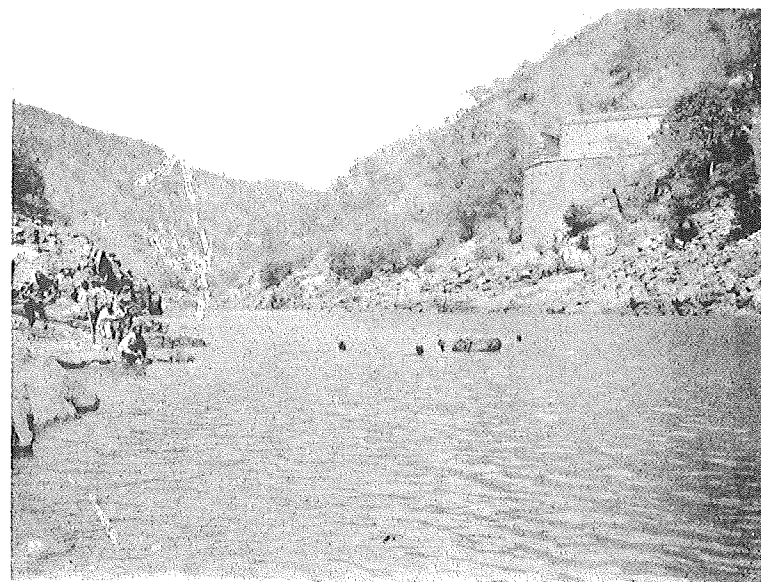
There is no ford by the bridge, and only a little village-

to-village traffic takes place, for which the men bring their own *jendies* and cross with them. We happened to see it done by a small party who came down with a donkey loaded with bales of cotton. The donkey was unloaded, and the bales were placed on the *jendie*, a whole native-tanned bullock-hide, the ends of which were then brought up and tied at the top. This primitive craft was then pushed into the water, and the men swam across, guiding the *jendie* and the donkey. If there is a woman in the party, she takes a precarious seat on the top of the load on the *jendie*.

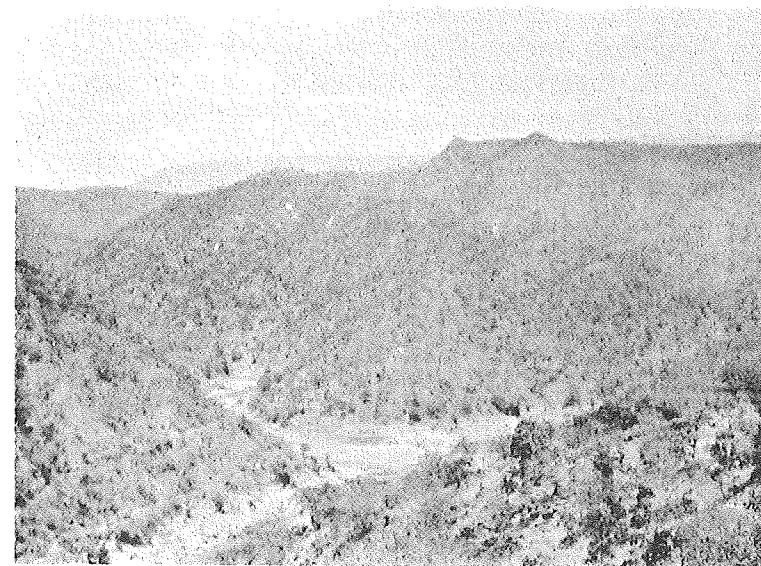
Our camp by the bridge site was one of the hottest places it has ever been my lot to spend a night in. It was a perfect inferno during the day; the rocks radiated the heat and were themselves far too hot to bear the hand on. Not a breath of wind came down into the narrow gully to relieve us. The sun set there at 4 P.M. owing to the steep hillsides, but it could be seen shining on the hill-tops above us up to 6.15.

The Gudr River enters the Abbai on the left bank 600 yards below the bridge. It seemed a very small river to be coming from such an enormous valley. Just at the junction there was a small cataract in the bed of the Abbai, possibly resulting from a bar thrown up by the Gudr.

On May 14th we left the Abbai for Zemmi in bright moonlight long before dawn to avoid the heat, and were up on the top of the valley before the sun attained any power. There were said to be two quarries of limestone in the neighbourhood that are used locally for lime-burning. I did not see them myself, but I asked Ras Hailu if I could have samples, and he sent me a kerosene-tin full from each quarry. The sample from Ganat Abo, in the Jabi district, was reported on as a compact cream-coloured limestone with no visible fossils, and that from Midara in the Liban district as drab-coloured, rather coarsely crystalline lime-



ABUTMENT OF BRIDGE BELOW ZEMMI
Peasants crossing Blue Nile with *jendie*



JUNCTION OF THE GUDR RIVER WITH THE BLUE NILE BELOW ZEMMI

stone with numerous minute spherical bodies and some fossils weathering out. Both samples were favourably reported on as building material. The scarcity of outcrops of good limestone in Abyssinia probably accounts for the fact that the Abyssinians have not acquired the art of building masonry structures for their homes in the provinces. Walls are usually of wood, of rocks arranged neatly on the top of each other without binding material, like the "dry walls" of the North of England, or of rock and mud mixed with chaff, but buildings of rock and mortar are very rare indeed.

Two days later we went on from Zemmi to Kork by an easy road following the edge of the Abbai Valley and giving magnificent open views of the water nearly as far as Dejen—that is to say that we could see a stretch of about 15 miles of the river running like a blue riband in the bottom of the valley, including the confluence of the Muqr River and six miles of the Muqr water as well.

A rugged crag called Komi, 300 feet high, stands by the roadside, providing a very distinct landmark which I used for bearings from the Gindabret plateau. From the base of Komi the whole district near the Abbai was spread out like a map before us. As I have mentioned before, there seems little doubt that if a dam in the river-bed were required, this is one of the sections in which the engineers should make a preliminary survey. For a long way there appears to be only a slight fall in the river, which is confirmed by the altitudes taken by hypsometer of Balati Ford, 3435 feet, and Kalo Ford, 3248 feet, showing a drop of 187 feet in eleven miles. In addition lime and sand can be obtained in the neighbourhood, as well as suitable rock, such as the granite used for Castanio's abutments at the bridge.

Within a short time of my visit to the bridge site, the J. G. White Engineering Corporation of New York were

instructed to locate an alignment for an all-weather metalled road from Addis Ababa to Lake Tana, and I reported that the line through Dangila, Debra Markos, Zemmi, and Gindabret was, according to my experience, likely to prove the least expensive to construct, chiefly on account of the great advantage that this crossing of the Blue Nile had over all others in the narrowness of the span from side to side, in addition to the fact that if the abutments were really in as good a condition as they appeared to be, the bridge was already half finished. The engineers who prospected on several alternative routes finally selected that alignment, and came again to make a more detailed survey two years later. They found the masonry of the bridge in such good condition that little will be required to complete it except the girders and iron-work.

The last time that I saw the bridge was on November 26th, 1933, when I was making the journey from Addis Ababa to Dangila, accompanied by my wife. It would have been too early to attempt the Nile crossing under previous conditions so soon after the rainy season, but Castanio had been sent by the Abyssinian Government to the scene of his former labours to make a flying pontoon ferry across the river. We came down from Gindabret on the track that descends to the bridge, where a certain amount of clearing of the overgrown path made the going a little easier than might have been expected. The gradients, however, were steep in places, and the projected new road will follow a different alignment to obtain a rise that will be suitable for wheeled traffic. It was my wife's first crossing of the Blue Nile Valley, and as first impressions are more vivid than they ever are again, I will give her account in her own words.

"I first saw the Blue Nile winding like a tiny stream many thousands of feet below us, and was told that it

would take a day to get ourselves and over fifty-six mules and donkeys across the river, and that we would have to start before dawn. It looked small and insignificant to need all that time. We were then on the top of the valley, which is a mile deep and twelve miles across, so I realised that we had some steep climbing before us. We had sent word to the local chief, who held the rank of Gerazmatch, to tell him of our arrival at a small place called Kachisi, and no sooner were our tents up than we saw a small group of Abyssinians coming through some trees towards the camp, which was on an open piece of ground near a stream. The Gerazmatch was riding a mule, but as soon as he came out of the forest he dismounted and approached on foot, followed by twenty men and his small son, who was carrying his fly-whisk. A large horned sheep, led on a string, completed the party. While the chief was being given coffee, the crossing of the Blue Nile was discussed, and the first thing he said was that we must wait two days at least, as he had to make arrangements for swimmers to be there to swim the mules across and to help with the ferry. He was asked if he would accompany us, but he said it was too far, the truth being that these men who live on the mountains dread going down into the valleys for fear of fever.

"At a previous camp we had sent a telephone message to Ras Imaru, the Governor of Gojjam, the country on the other side of the Abbai, to warn him that we were on the way, in order that he might send his men down to help us on the other bank. Apparently an undercharge had been made by the telephone operator, and so a runner had been sent about twenty miles to ask us to pay the extra money, a matter of a few pence. Telephone offices were usually round thatched huts connected with each other by a telephone line, which was carried across country on crooked poles, with or without insulators; sometimes

the line had become disconnected from the original post and had been placed over an overhanging branch of a tree, and frequently I had to lift it up to allow the mule and myself to pass under. We sometimes found that the sole occupant of the telephone office was a large sheep, or a small child that could neither read nor write.

"The Gerazmatch asked if he could be introduced to me, as he had heard that the Englishman had his wife with him. I expect he had not seen a white woman before, for he asked the interpreter if I had anything wrong with my eyes because they were blue instead of brown. He then called for the sheep, which was handed over to us, and he assured us that had he known earlier of our arrival (he had had several days' notice), he would have given us a much better sheep. This was my first experience of live presents, and I was a little perplexed how to deal with the situation. However, it was a placid creature that made no effort to run away, and next day it followed the caravan without a backward glance. With our horned mascot we looked rather as if we were trying to copy the Welch Regiment.

"Everyone's mind was now concentrated on the crossing of the Abbai. All Abyssinians dislike going into the hot country, so we went only a short distance to avoid spending two nights in the lowlands. The track lay through forest country, not thick and impenetrable but pleasant woodland. That night we pitched our camp at Cheluti, a little way down in the valley, and here we were asked a dollar (1s. 4d.) for about a pint of milk; the price paid up to the present had been a few copper *baisas*. Occasionally we found that the people refused to sell milk to foreigners at all, saying that the cow would not give them milk. We did not want milk from Abyssinian pots, as it always went sour, and liked the cow milked direct into our own aluminium can, but a self-respecting Abyssinian cow objected to the

noise of the milk on the metal—she preferred a gourd into which the milk fell silently. Once our men had been refused milk, and the reason given was that we came from Gojjam where the people eat babies, which of course is totally untrue. As we passed a cornfield a proud father held up his small son to see the foreigners pass by, but the child was scared by our white faces (mine was bright red by now) and shrieked and struggled in his father's arms until he was put down, whereupon he fled into the forest.

"The next night we camped at Karadobi, still farther down the valley side, and at sunset we walked to the edge of a hill and looked at the Abbai winding along far below. On either side were wooded mountains running sheer down to the river's edge. The sky was dark and angry, with great banks of golden clouds and deep sapphire mist veiling the distance. Darkness came as we walked slowly back, and we heard a voice inside a *tukle*, or native hut, saying "Allo, 'allo'. It was the telephone office, and some message was coming through, possibly, we thought, the time-signal going through to Debra Markos, relayed four times from Addis Ababa with the usual delays. We had mutton broth for dinner, and I knew that in our travels on the following day we should no longer resemble the Welch Regiment.

"We were now to experience the steepest descent so far encountered. Riding was impossible, and although I was wearing rubber-soled shoes I slipped and slid on the loose stones in all directions. The track wound to and fro, and the mules had a hard time with their awkward loads of tents and boxes among the rocks and trees. We went down a thousand feet in half an hour. An Abyssinian farmer passing with his mule and donkey saw how difficult I found the descent, and came forward with his long olive-wood stick, which he insisted on lending me, and which I found a great help, and that evening he came to

the camp and begged me to keep it for the rest of the journey. The Abyssinians are an extremely courteous people, especially out in the country; no one would think of passing our caravan without greeting us, and those who wear a hat remove it.

"That evening there was a cloudburst which completely blotted out the whole Blue Nile Valley and soaked the tents, which had little chance to dry before our start at 5 A.M. next morning. These storms were not expected at this season, but it cooled the air and made the descent less dusty the following day. The men were up before it was light and made huge bonfires so that they could see to pack up and load the mules. I ate a solid breakfast, as I did not know when we should get our next meal. We still had to go down 2000 feet of rough track before we reached a section of roadway cut thirty years ago by the Italian engineer Castanio, near the bridge. Between the hills were masses of soft, woolly clouds, which had tucked themselves into the valleys for the night and apparently forgotten to get up again. After two hours on foot we mounted our mules and rode through tall, tropical grass above our heads. It had prickly seeds that pierced our stockings and then continued to wander all over our bodies. The wild flowers were lovely everywhere. On one side were mountains rising into the clouds, and on the other was a drop of eight hundred feet, and the road was narrow. The thought of how awful it would be to have to climb up again in that heat prevented me from slipping over the edge. It looked as if the two tops of the Blue Nile Valley had joined at some remote period, but owing to a volcanic disturbance had been suddenly split apart.

"And we still went down, down, until suddenly round a corner we saw the two stone-built bridge-heads and heard the water of the Blue Nile rushing along. We stood above on a rocky platform and watched the mules being pushed

into the water and swum across with native swimmers at the head of each one. The current carried them a few hundred yards down the river, and they had to scramble on to a very steep and rocky bank on the other side. As each batch left our shore a rifle was fired, some said to salute the river, but I thought it was to frighten the crocodiles. One poor donkey was terrified, and climbed out on to a rock, where it sat upright like a dog, too frightened to move. It took three men to push it into the water again. Everyone shouted at everyone else, whether they were on the same side of the river or not—in fact the noise resembled that of the bookies at a race-meeting.

"The ferry had only been working for six months, and consisted of an iron flat-bottomed boat, about 16 feet by 12 feet, attached to the banks by ropes wound round the tree-trunks. Another rope was passed through a pulley that ran along a wire stretched across the river some thirty feet above our heads; this prevented the boat going downstream. Our guide now produced a field-telephone receiver from his pocket, and stooping down fitted it into a socket in the wall of the bridge, thus connecting it with a telephone wire, and spoke to the Gerazmatch, who had remained in his village and was taking a lively, if somewhat distant, interest in our welfare, and had insisted that the guide should report our progress. It seemed a strangely modern touch in the middle of this wild country.

"Our luggage was loaded on to the ferry, and while the shouting increased, the men on the opposite bank began to pull the ferry towards them, while one man on our side paid out the rope, and the little iron boat swung about in the current. This was repeated four times between 11 A.M. and 3 P.M. It was 93° in the shade, which is moderately cool for the Blue Nile Valley. We went over with the second load, and I hoped to quench a raging thirst, only to find that the water-bottles were waiting to come in the

next load. We sat on sun-baked rocks off and on for six hours; rocks are very hard things and get harder and harder, and I ended by lying on my front. At last everything was across, including our interpreter, who had taken the opportunity of impressing the onlookers by firing his rifle and pistol alternately at the river. An Abyssinian does not feel fully dressed without a fire-arm of some sort, and it adds considerably to his prestige to own a rifle. Even a cartridge-belt is better than nothing, and several of our muleteers wore them bristling with spent cartridges from my husband's shot-gun.

"We started to reload at 4 P.M., and it was a very weary party that set off to climb out of the valley so that we might sleep in comparative comfort. We decided to spend the night at Shimal Agabo, part of the way up the valley, where we found a little clearing and some more or less level ground for the camp. The water was green and slimy and there was no milk. There was one small hamlet a few miles away on a hill-top, but the men said there was illness in the village and it would be unwise to fetch milk from there. I thought they were too tired to go, and I was certainly too tired to care.

"So ended my first crossing of the Blue Nile. I was to ford it on mule and on foot many times, and eventually I visited its source, but this crossing of the valley will always remain a never-to-be-forgotten day.

"We were now in Gojjam (Ras Imaru's country), and he had sent a guide to meet us at his boundary, the river, to show us the way. We had some steep climbing before us, as the Blue Nile is here only about 3000 feet above sea-level and the top of the valley is 8000 feet. We often saw our caravan zigzagging above our heads. At one spot on the road we passed an overhanging cliff, some of which had crashed down in 1926, and the rest is sure to follow one day. Our guide, who was a local Gerazmatch, said

that he always hurried past it when he was alone and had not liked to draw our attention to it. Our Gerazmatch found us a good site for a camp at Zemmi, and left us to go to his house, assuring us that he would return to guide us next morning. However, there was no sign of him, so we proceeded on our way towards Kork on foot, as we still had a mountain in front of us. We had just mounted our mules and were peacefully wending our way through a wood when a runner appeared to say that the Gerazmatch was behind and had brought refreshment. There he was with his men, who were carrying a little wooden table and three-legged stools, carved in one piece out of trunks of trees. We had to stop, and I left my husband to enjoy this unexpected hospitality, which consisted of *tej*, a kind of wine made from honey, served in buffalo-horn cups, while I went on with the caravan.

"We enquired about the origin of the tree stools, as they are made in Jimma in Southern Abyssinia and were not found in this part of the country. The Gerazmatch told us that a few families had recently come from there and settled at a place called Gindabret (*gind* means timber, and *bret* means iron), famous for the big trees found there, and were making the stools and selling them."

CHAPTER XXV

KORK TO GUM YASUS

March 2-27, 1927

WE now return to the first reconnaissance of 1927, which we broke off at the Balati Ford, whence we made our way back to Kork in four hours on March 1st. We were on the move again next day, and crossed the Yeda River near the head of its ravine. It was still in a small valley 200 feet deep and half a mile wide, and the water was 18 feet wide and one foot deep, running at six miles an hour, and slightly muddy from recent rain. It rises in the Chokai Mountains, and in its lower reaches in the ravine it is known as the Laga Waldo. Its first sharp descent into the chasm, which began a mile downstream, was not so precipitous as some of the others we had seen, though the river is soon in a big valley.

Several small springs were passed with their streams running northward and then into the Yeda; that is, though they rise near the edge of the Abbai canyon they flow away from it at first, showing that the land-level is higher along the edge of the Abbai ravine.

From Yejibe village, which we reached after seven miles, a road passes through Baso, descends to the Abbai at Yekatel ford, and thence climbs up to the Gudru highlands. In March the Yekatel ford is crossed by swimming the baggage over on *jendies*; in May it becomes passable on foot. It was there or thereabouts that d'Abbadie crossed, as did Mr and Mrs C. F. Rey on their way to Debra Markos, so I decided not to visit it but to content myself with verbal information about it, and push on and see a less frequented

crossing, this determination being made absolute by a thunderstorm and an inch of rain that fell during the day. We had not seen the sun for two days, and no work on the stars had been possible for a month.

Four years later the interest of Abyssinia and, in fact, of the world, was focused on this district and the ford, for it was in this neighbourhood that the deposed Emperor of Abyssinia who had been interned since 1921, Lij Iyasu, grandson and heir of Menelik II, having escaped from Fiche, crossed the Abbai and entered Gojjam, where he was arrested by an official and handed over to Government troops who were in pursuit. Lij Iyasu's plans had failed. He had expected to meet Ras Hailu in Gojjam, where a rebellion would have been raised against the Government and Lij Iyasu would have been proclaimed Emperor of Abyssinia once more. The conspiracy had been discovered, Ras Hailu had been arrested in Addis Ababa, and the ex-Emperor, after several hungry days of freedom, was taken to Addis Ababa a prisoner and was sent to more secure confinement in Harrar.

Our guide took us a long way from the Abbai to circumvent the great Chamwaga ravine, which was reported to be impossible for mules or donkeys to cross, so I spent one day in reconnoitring and the caravan set out again on March 4th. I did not share the guide's view that we ought to go completely round the outside of this ravine, so we compromised and cut across it about half-way, where the descent and rise on the other side were not very difficult. The water of the Chamwaga was 50 feet wide and one foot deep, with a speed of six miles an hour, and the bed at the ford was of loose boulders. The head of the chasm is near Debra Markos, the capital of Gojjam province, and close to the town Ras Hailu, with the help of a Greek mason, had built a masonry bridge across the Chamwaga.

In the deeper parts of its ravine, near the Abbai, stand

the two fortress-like sandstone pinnacles rising from the lowlands, called Jiballa and Mutara. They are famous as prisons for political offenders of high degree. There is only one path up to the top, and the other three sides are precipitous, though, strange as it may seem, there is water. Ras Mangasha is said to have used Mutara as a refuge when flying from King John, and to have held the fort with very few men.¹ The last prisoner that I heard of as having been confined there managed to effect his escape. He was a chief of independent notions, and I had myself had trouble with him at Zegi on Lake Tana, when he and his men had come out of the town and fired on us, mistaking my caravan for a patrol of the Abyssinian Government, with which he was as usual at loggerheads. Several years later another dispute with the authorities had arisen and he had been arrested. He had been allowed to enter Mutara well provided with money, which he invested judiciously in a feast for the guards, with an ample supply of good *tej* or honey-wine. In the night he stepped over the heavily sleeping forms of the guards and returned to his home.

On March 5th, after climbing out of the Chamwaga chasm, we turned and kept along its right bank towards the Abbai, crossing the Wusata River where it falls over the chasm to join the Chamwaga. Another river, the Watran, which can be seen all the way to its source at Debra Markos, was flowing in a slight depression half a mile to our right in a big undulating plain of rich red soil, with many villages and much corn cultivation. Our track went to Mutara and Jiballa, so we left it and turned towards the Watran, by which we camped. This, like the

¹ Ras Mangasha, a natural son of King John IV, was one of Menelik's generals who in 1895 fought four battles against the Italians, including one at Aksum, in all of which he was defeated. I assume this was the same Ras Mangasha who in his younger days had been besieged in Mutara.

Wusata, is no more than a stream, and it runs independently into the Abbai.

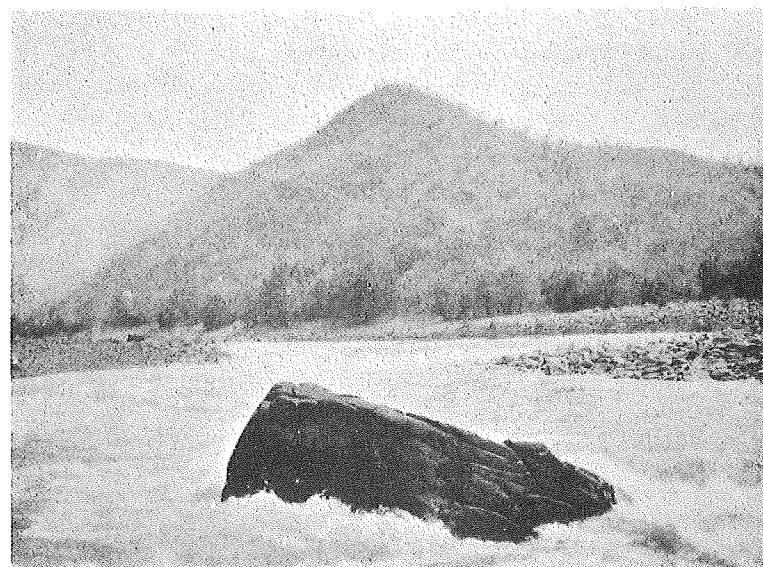
My object was still to get nearer the Abbai, and I hoped next day to camp on the Gozamin spur, but it was reported as waterless. A local official said that there was an Abbai ford, called Malka Meyu, below the Gozamin spur, but it was a six-hours ride and the way was all in forest with no villages or cultivation, and was infested by highwaymen. He added that it was formerly much more frequented, but was now only used by people on foot. He recommended a ford in Jabi, named Malka Satana. He was probably exaggerating the difficulties of his own ford and praising the other which was beyond his district because he did not want the trouble of escorting us. It did not matter to me which I saw—they were close together—but there was not time to see both. We did no more than eight miles that day, reaching the Ted River, another mere stream, which joins the Tashat in the Tashat ravine. To reach the Satana ford we had to round the head of the Tashat ravine and then get back to the Abbai on the Ijabi or Jabi spur.

On the following day, the 7th, we crossed the Tashat close to where it drops abruptly down 300 feet of sheer precipice, and so by a succession of small falls to some 3000 feet, its ravine being then about five miles broad, most of it clothed with uninhabited forest called Dijim. The Tashat, which is said to rise in springs in Machakil, does not enter at the head of the chasm but comes in some distance away on the right-hand side; the water was 5 feet wide and 2 feet deep, its speed four miles an hour. Our camp was by the little Agot River, originating at a spring near by, and flowing into the Tashat ravine. Next day we moved camp a mile or so nearer the edge of the Jabi spur, and found a spring and a small stream called the Yezahin, with ample water. We were able to visit a church named Ganat Abo, famous in Gojjam as being near a village where

King Takla Haimanot, ruler of Gojjam and father of Ras Hailu, was born. Ras Hailu was having it rebuilt with local rocks and lime from the Abbai valley.

From the end of the spur there was another fine view of the mighty chasm of the Big Abbai. The river was visible in broken country in the lowlands, winding between big hills which were in turn dwarfed by the immense crags of the main valley. As usual, objects were dimmed by dense blue haze, which assists the vast distances in making it impossible to produce a photograph that can do any justice to the scenery and give the right proportions. On the left bank of the Abbai the Finch River was represented by a wide gash between the great land masses of Gudru and Horo. The confluence of the Finch and the Abbai was seen upstream of what was called the Satana Ford, and downstream of Horo the next large mass of mountain was Amoro. The Abbai had left the sandstone and was flowing through the granite, on which erosion had made little impression. The river was passing among a succession of cone-shaped granite hills a few hundred feet high and covered with scrub forest, and was being pushed to the right and left to get around them and between them.

The main camp remained at Yezahin on the 9th, while the usual small party went down to the river. The journey was a long one, 15 miles, and the descent for the first 600 feet down the Jabi precipice was steep, but afterwards it was a gradual fall along a forest track. It was the leafless season for the trees, and we got no shade, while grass-fires had consumed most of the grass. There was enough cloud, however, to keep the sun off us, which made travelling pleasant. When we reached our goal at Satana, we did not see the ford for which we had been making. The mules would have had to swim over a pool 80 yards wide, where deep and tranquil water was passing at a speed of



BLUE NILE CATARACT NEAR SATANA FORD



SHINASHA MEN AND WOMEN, DORA RIVER, WANBERA (p. 328)

about a quarter of a mile an hour. Men can bathe there without fear of crocodiles, a liberty they would not take in pools on some of the higher reaches. Below this the water fell six feet in fifty yards, forming a small rapid. The river, instead of increasing with the addition of many tributaries, had resumed its brook-like appearance, partly owing to the falling volume of water after several successive months of the dry season; but even allowing for this the bed could not be described as imposing.

We could find no level ground for our camp and had to pitch the tent among rocks on a hill slope. Nothing was visible from the river-banks except the bordering hills, 300 feet high. Temperatures were high; the air temperature in the shade at noon registered 99° Fahrenheit; the water temperature two hours after noon was 78°. The quality of granite found in the river-bed and on the banks was red pegmatite.

We took six hours to return to the main camp next day, having taken seven hours to go down. I found that I had underestimated the distance from the cliff-top to the river when guessing at it from the view obtained from the spur. The estimation of distances over a landscape with a fall of over 4300 feet proved most deceptive. When plotting the distance by the time taken, one mile an hour was allowed for the steepest part of the descent to the Abbai, with an average of two miles an hour for the whole journey.

The following day's march was one of eight miles across the base of Jabi spur, over highlands with villages and cultivation, to Yasmula. We were moving nearer to the Tamcha River, which was said to be in a steep-sided chasm. I heard of a ford below Wamet, but as it had been crossed, I believe, by d'Abbadie, I decided to miss both this and the next well-authenticated crossing at Mabil. The seven-hour descents to and rises from the Abbai

were taking the heart out of my remaining mules, and there was very little reward when all was done, for there was nothing to be seen when I got down there but a small river which went out of sight round a bend half a mile up and down stream, and there were never any landmarks to work from. Nowhere hitherto had animal transport been possible up or down along the banks. Meanwhile there was a tremendous lot of mapping to be done along the top of the valley, and we were already a month behind our programme.

On the 12th we spent the whole of seven hours of travel in crossing the Tamcha ravine. It was a bad road and cannot be recommended for loaded mules. There were two difficult places on the left-bank descent, and the rise on the right bank was very steep. It is, however, an interesting and important confluence of several large tributaries of the Abbai that are better known in their higher reaches some twenty-four miles away, where the main caravan track from Addis Ababa to Burye crosses them, and when the new road from Addis Ababa to Lake Tana is built they will all have to be bridged. The Tamcha has already been bridged by a masonry structure built some thirty years ago by King Takla Haimanot on a wide loop of the main caravan track downstream of the dry-weather road and ford. The junction of the rivers was very incorrectly mapped, and I found a lot of work for my compass and pencil. The castle-shaped hill at the end of Wamet bluff was a prominent landmark, and could be seen a long distance from most points of the compass. Our guide talked of the Abbai fords at Wamet, particularly the downstream one which he called Malka Sabar, but as he described it as a swimming-crossing only it did not sound important.

The first river we crossed in the Tamcha ravine was the Tatma, which rises near Elias and joins the Tamcha close

to where we forded it. It was six feet wide and one foot deep, with a current of ten miles an hour. The next was the Tamcha itself, which had already absorbed the Bula, a fast-flowing river, below its junction with the Gadab; we could see the two ravines coming together three miles above us. The Tamcha water combined with that of the Gadab was 50 yards across, but part of this was shallows. The deeper part of the channel was 20 yards wide and 2 feet deep, with a current of five miles an hour. This would be a considerable addition to the volume of water in the Abbai. We camped on the ground dividing the Tamcha from the next tributary to be crossed, the Bir, their junction being in the same ravine but below us. Beside us was the Mualk, a small spring with a stream that at first flowed away from the Abbai, then swinging round joined the Tamcha.

For the seven miles from here to the Bir the track was good, with the exception of three bad places, where there were only narrow passages between rocks; some of the mules had to be unloaded and their packs carried by the men past these obstacles. A valuable and distinct landmark now came in sight in the shape of Fudi, the core of an extinct volcano 45 miles to the north-east, and I was very pleased to be able to take bearings on it to check my compass traverse. Care must be taken, however, not to mistake it for Atsam, as d'Abbadie did, as they are of similar formation and are in adjoining districts.

The Bir Valley, where we passed through it, is ten miles wide, and looks shallower than any others that we had seen. It gives the impression of being in an entirely different formation, for it appears to travel for most of its course on a lava-flow in which it has found a fold, and has a remarkable channel cut in solid lava, with pot-holes and a bed eroded in fantastic shapes and patterns. The Bir ford was deep and swift, with big rocks and holes under water,

so that several mules rolled over with their loads. The water was 22 yards wide and $2\frac{1}{2}$ feet deep, and the current three miles an hour. Eighteen miles upstream the Bir is crossed by the main caravan road from Addis Ababa to Burye, where a very similar steep-sided bed cut deep in lava has recently been spanned by a masonry bridge, built by a Greek mason working under the orders of Ras Hailu.

The Bir would make another great increase in the volume of water flowing in the Abbai. The contributions of the Bir and Tamcha are particularly important to the Abbai in the dry months, as their flow does not diminish to the extent seen in some of the others. The Muger and Gudr, for instance, and similar rivers have enormous valleys that shoot down immense quantities of water when it rains, but they soon fall when it stops. The Tamcha and Bir have small valleys and are supplied by tributaries that rise in strong springs. One may assume this to be true, although I have actually seen only one of them, the Tukur Wuha River, which rises close to where the main Addis Ababa-Burye caravan route crosses the Bir, from a strong-flowing spring of clear water issuing from among loose cubes and blocks of scoriaceous lava. It does not vary in flow through the seasons and is never cloudy, and, taking a course parallel with the Bir, eventually joins its right bank. On this side of the Bir is a broad, flat, fertile plain of black cotton soil, with fields of cotton, *dagusa*, *tef*, and tall millet, and numerous villages.

On the 14th, after going six miles we climbed the low range which lines the valley edge and reached a height of 6890 feet at a little market-centre called Guche, on the watershed between the Bir and Fatam Rivers. Within two miles we were camping on the Fatam River, having descended only 110 feet from the watershed. Here we had come upon another peculiar topographical formation, for the Fatam was flowing more or less parallel with the Bir,

along its right bank, at an elevation which the barometer showed to be two thousand feet higher. The Bir was like a railway-line with an elevated railway running beside it. The explanation probably lies in the uneven surface of the lava-cap.

At the Fatam we had a tedious, and for me an impatient wait of a week, necessitated by the condition of the mules. Tahai Dasta had to go to Burye, the nearest town, to buy eight new mules and to hire a man to take eleven tired and exhausted animals back to Dangila by easy stages. The Fatam, by our camp, was in a shallow valley with forest on each side and no villages. Within half a mile it drops over the precipice of the Abbai ravine by three short falls and many cascades, thence by ten miles in the ravine to join the Big Abbai. Fine views of the Abbai Valley can be obtained from the cliff. Our guide said that the falls were known as Gumba Bul, and that when they were in flood they made a good landmark, as they were conspicuous from the left-bank plateau. A local man informed me that I was looking at three Abbai fords all close together, and that all of them could be crossed on foot at that time of the year. The main ford, he said, was Malka Lelu, or the Mabil ford, and was the one used by merchants. The upstream ford was Jambir, and that farthest downstream was Gamado. Jambir seemed to be the same as the Malka Lokman shown on the maps. Lokman and Mabil are prominent cone-shaped hills down in the lowlands near the Abbai. Mr Doughty-Wyllie had crossed the Mabil ford in April 1912, and described it as waist-deep and 150 yards across.

Tahai Dasta arrived with the mules on the evening of the 22nd, and we lost no time in striking camp early the next morning. Now we were rounding yet another chasm, that of a small stream called the Katlan; it is short and broad and is one with that of the Fatam. The two rivers are

divided down below by a fertile platform called Shaf. Gumr is a small village, but its market, held on Tuesdays, is known far and wide, as it is on the main caravan route for goods coming from and going to provinces on the Abbai left bank, such as Wallega, that cross the Blue Nile by the Mabil ford. There seemed to be little traffic now, as most of the trade gravitates by the big routes direct to Addis Ababa and the railway. Gumr was once a centre of the slave trade, being the first depot on the right bank of the Abbai for slave caravans coming from the south and going north. This had all been changed by the measures taken by the Abyssinian Government to abolish slavery. Our camp that night was by the Shamet, a strong spring so rich in iron that the water turned our tea black and the rocks and mud in its bed were a rusty red.

The track next day led through grass and forest land. Soon after leaving camp we were told that there was another Abbai ford to our left, named Gutr ford, which was described as being very much like Mabil ford. The next outrun from the Abbai which we encountered was the one that received the Barts River. A change had come over the valleys, for these depressions were not deep nor were their sides precipitous; in the flat bottom much cotton and millet cultivation was carried on, and there were many villages. The Abbai water was not visible, but the river could be seen to be in a comparatively flat-bottomed valley three miles wide before the hills begin to rise on either side. After nine miles we halted at the Zingini, here 30 feet wide and one foot deep, which rises at Injabara, not far from Dangila.

The local official brought a large white goat as a present, and from his stories he appeared to have been a mighty hunter in his youth, and only the year before had shot a lion near by on the Zingini. By a strange chance I met him again five years later on Lake Tana. He remembered our

meeting chiefly because he had presented me with the white goat; that seemed to have made a great impression, but he had forgotten me. I remembered him and had forgotten the white goat.

While we were at the Zingini I began to make enquiries to find out, if possible, whether Jessen's arrival from his journey up the Blue Nile was remembered by any of the inhabitants, for we were approaching the place where he left the river-bank and took to the highlands, so far as one can locate it by his book. Nobody there appeared to have any recollection of him, however.

If we had heard of it in time we might have taken a track to a place called Sorait, which would have been more direct for our purpose and nearer the Abbai. Perhaps it was just as well that we did not, for the guide who told me of it too late said that, although it could have been followed earlier in the year, there was now no water in the streams there. Even where we did camp, the Kosi stream that was expected to supply us was found to be dry, but the men discovered water in a pool.

On the way through a country of many villages and crops we passed the Sur River, then only a trickle, which joins the Zingini, and crossed the Aiyo River, which was 24 feet wide and 9 inches deep, and had a speed of three miles an hour. It too joins the Zingini by a considerable swing in its course. Another Abbai ford was mentioned to us, called Yebitché, now passable by men on foot and sometimes used by merchants. It joined the Mabil ford road on the Abbai left bank in Washit, and no other ford was known this side of Gum Yasus, a high hill ridge now visible running out to the Abbai. The Suri River, the next that we came to, was said to be the boundary between the large provinces of Damot and Agaumdir. It joins the Choancha River which we crossed on the following day.

As we passed Inakusa the Thursday market was in full

swing, and I sent men to buy mules, donkeys, or horses, but they returned without them, saying there were none for sale.

Thunderstorms and rain followed us with a persistency that was infuriating to me, as I knew it was unusual to have so much wet weather in the month of March. My chance of completing the journey right along the Blue Nile Valley to the Sudan was becoming faint. Wanbera, which would be the last of the land at high-plateau level, and is in fact a kind of outlying land island of the high plateau, was now only a few days away. After that, if we were to go on to Roseires, the caravan would have to accompany me into the lowlands, and I was afraid that the rains would have started the mosquitoes and horse-flies.

The weather delayed our start on March 25th, for heavy rain at night necessitated a few hours' wait to allow the tents to dry. Then when they were ready a mule which had been bought on the road turned out to be a buck-jumper and threw load after load until it tired itself out. All the villages we passed were Abyssinian, but we were approaching the beginning of the negro country. As we were in Agaumdir, the villages had an Agau name as well as an Amhara name; later on there was a third, Negro name, so it is not to be wondered at that confusion arises and identification becomes difficult and uncertain.

We had intended to camp at Assi, but heard that there was no water there, so when we passed a trickling stream, called the Matin, I ordered a halt in order to be on the safe side. We covered over ten miles, and crossed the Choancha River, a stream which was nearly dry. It joins the Dim River, and the two go on together under the name of the Dim; both come from the high volcanic mountains called Chaza Kunzela, not very far to our north. We went

no farther on the 26th than Kolaj village on the Domkam River, less than two miles from the Matin, and then had to shift our camp to the other side of the village on to higher ground, as the place we had chosen became a sea of mud after a heavy downpour of rain.

Local officials seemed somewhat agitated, and a good deal of consultation had been going on between them. Eventually we found that it was all because when we moved on towards Wanbera we should, as they told us almost in a whisper, have to cross the depression of the Dura River, which is negro country, and they considered an escort necessary for the next stage or two. The Abyssinians and Negroes had not quite forgotten their old feuds, and mutual suspicion remained. A few years earlier it was customary for the Abyssinians to make yearly raids for slaves. Ras Hailu, acting on orders from the Central Government, had stopped this, and had made one of the local chiefs responsible for the carrying out of the decree, but complete confidence between the two races had not yet been established. Old grievances would not be forgotten for a generation, so reprisals on a weak party of Abyssinians passing through what was considered negro territory were deemed probable.

Our guide told me that in the olden days he had hunted in the lowlands near the Abbai, below Gum Mountain, which was now a prominent landmark to our south. There were in those days plenty of buffalo, but he said they had suffered from some epidemic and were now extinct. He hinted that rinderpest, which wipes out large numbers of domestic cattle, was responsible, but their disappearance is more likely to be due to the introduction of the modern rifle.

After two thunderstorms and a pouring wet evening all the muleteers came in a body to say that they would not go farther than the highlands of Wanbera. They were con-

vinced that as soon as they got into the low country the fever would kill them, now that the rains had started early. I sent them away without an answer and had to decide whether it would be worth the risk. At the time I did not fully realise the truth of what they said, although they were perhaps being a little over-cautious, but with the advantage of several years of my own experience and that of other travellers employing Abyssinian highlanders in the lowlands near the Sudan, I know now that a retreat, however exasperating it may have been, was the wisest course. The journey to the Sudan and the return to the highlands would have necessitated their being in the danger zone for at least six weeks. There was a possibility that I should have found myself stranded in the uninhabited lowlands, perhaps fifty miles from anywhere, encumbered by a lot of incapacitated men, with most, if not all, of the mules dead from *nigma*, or horse-sickness, their packs and saddles and the tents deposited in the forest with no means of getting them out. To say the very least of it, useful survey work under these conditions would be quite impossible.

In the country that is too low for the Amhara Abyssinians to colonise successfully, and above that occupied by the Negroes, are found an interesting people, the Shinasha, who are probably the survivors of a Hamitic race that arrived in Abyssinia before the Semitic Amharas came and turned them off the best lands. From the parties of Shinasha we met I was unable to see much distinction between their features and those of the Amhara, but the Amhara considers them an inferior race, and the two do not intermarry. The Shinasha have their own religion—they are probably pagans—and their own language, which is unwritten. They are confined to a very few villages and probably do not number more than a few hundred persons in all.

A conversation I had with a native at Kolaj village when

no one else was with me, convinced me that we could get down to the Abbai without much trouble. It was quite evident that I was the only one who had any desire to keep near the Abbai. Everyone else was anxious to get away from it, and I suspected that local men who were brought to give me information were schooled beforehand to exaggerate the difficulties of the tracks near the river; so I launched out on my own account, with much profit. I found that I could take the caravan to Gum Yasus, which was 5845 feet above sea-level, about six miles away, and go down with my special party from there to the Abbai and return the same day. In fact, owing to the deceptive effect of the blue haze in the valley, Gum and the Abbai were much nearer than I had estimated.

Beside the church of Gum Yasus there is a village inhabited by Abyssinians. The inhabitants spoke Agau and were, I think, pure-bred Christian Agaus. Here I found that there was a tradition, amply corroborated by several men, that twenty years earlier a Ferengi—a European—had followed the Abbai as far as Zakas ford, and, having left the river, had come up through Gum Yasus and gone on to see Ras Mangasha at Burye. His interpreter had died down on the Abbai. This story was so similar to the account given by Jessen himself in his book that I had no doubt that he was the European referred to, and, as I had almost made up my mind to return to Dangila from Wanbera, it was with great satisfaction that I realised that one of the main objects of the expedition had been achieved. I had seen the whole of the Blue Nile Valley and most of the river itself from Lake Tana up to Gum, and the remainder of the river from that point to the Sudan had been seen and described by Jessen. From our united efforts it would be possible to say that the Blue Nile held no secrets of primary importance. This consideration greatly alleviated my keen disappointment at not being

able to do the whole length of the valley myself.

By this time the caravan was in a distinctly battered condition. We wanted more mules but could not obtain any. The medicine-box had been smashed and was now tied together with rope, and medicine was getting short. The tin boxes bought especially for mule transport were bent out of shape; only two wooden boxes out of all our numerous loads remained intact; tents were torn by branches and thorns so that they did not give sufficient protection to the men when it rained heavily. My eighty-pound tent had been protected by being carried in a skin bag. An extra man had been engaged to carry the legs of the theodolite, as even when folded they were too long to load on a mule with safety. If he had been free he could have been employed very usefully in other directions. For nearly two months observations on the stars had been prevented by cloudy skies.

It is a curious fact that no cows were seen in Gum, and the ploughing was done by donkeys instead of bullocks. The explanation given was that the cattle had all died of some disease in the last three years and yet there were big herds in Kolaj, only five miles away, and at about the same altitude. The question arose in my mind whether or not it could be tsetse-fly, as recent investigation into its range has proved that it is moving northward, and it has been found in Abyssinia not far from the Abbai Valley. Otherwise the Abbai certainly seems to have an influence for evil for which it is impossible to give any definite reason.

CHAPTER XXVI

ZAKAS FORD, THE DURA DEPRESSION, WANBERA

March 28-April 15, 1927

ON March 28th a party consisting of two guides, Tahai Dasta, two Sudan policemen, and myself made the expedition from Gum Yasus to Zakas Ford. I had been told that we could manage it in one day if we started before dawn, and as the road had been described as bad for loaded mules it seemed better than taking tents and staying the night. I should not attempt such a day's journey again. The four middle hours of the day were appallingly hot, all the more so as for part of the way our road was a dry river-bed where no breeze could reach us. The mules were travelling altogether twelve hours, with hard work all the way, without food and in a heat to which they were unaccustomed. The country between camp and the river was waterless at that time of the year and covered with uninhabited forest.

The track descended 3200 feet in the seven miles, and it took us 6 hours and 40 minutes to reach the river. There was only time to spend an hour on the bank to rest and water the mules before starting the return journey, which we did in better time, $5\frac{1}{2}$ hours. The mules were allowed to canter for the last five miles to avoid an approaching thunderstorm.

We left camp by the light of a small moon which helped us to see the road going between the peaks of Gum and Abdir. Gum, the bigger, is only 800 feet higher than the surrounding plain but looks more; it is volcanic and has a few pinnacles of bare lava rock. When we got down to the

Abbai level and looked back, Gum, with several thousand feet added to its south slope, appeared immense. The scene as we passed through the saddle between the peaks just after sunrise and looked down over the Abbai Valley was a vista of innumerable hills and summits crammed into a strip of low country about 15 miles wide, each hill from 500 to 1500 feet high. A hill 1500 feet from base to tip may seem a lofty eminence when standing alone, but the mere numbers of them defeat that impression, and all are dwarfed by the 3000-foot mountains of the valley sides.

Half-way down we passed a dry torrent-bed of red granite where the guide seemed to expect to find a spring but was unsuccessful. A reach of two to three miles of the Abbai water was visible when we got within two miles of it, and upstream of this at a bend in the course there was another straight reach. The Abbai was not in a trench-like ravine here, but the hills on the right bank descended gradually to it, giving more extensive views. The highlands of Ibantu that are opposite on the left bank seemed a long way from the river. The junction of the Dim River with the Abbai could be seen in a group of leafy trees. The road had several bad places and was overgrown with bamboo, through which we were forced to lead our mules, and the last hour of the descent was spent in following a dry torrent-bed covered with polished granite blocks that would form waterfalls with a drop of 8 to 10 feet when the stream was flowing; at several of these places mules had to scramble up the steep banks to get round them. This bit of the journey was as nearly impossible for mules as can be imagined. Where there were no rocks the torrent-bed was composed of deep soft mud that was very tiring in the heat. At length we came to a flat, level stretch of a mile between the bottom of the hills and the river, well covered with tall forest trees. On the river bank was a belt

of soft sand piled up by the flood at high-water level, and on this was a fine field of cotton, planted, I was told, by Shankalla (the Amharic for Negroes), though we did not see anyone there. White cotton was bursting from the pods and covered the plants like snow. This is the negro limit up the river. There are no villages there, but they walk long distances to favourable sand-banks to plant tobacco and cotton and gourds as the water recedes, when the plants obtain sufficient moisture from the sand to grow and fruit without further attention.

The ford called Malka Zakas, which the barometer showed to be 2562 feet above sea-level, was a quarter of a mile below the camp. Men can cross it on foot at this season. It gave me much satisfaction to be able to report the Abbai here as a large river 200 yards across. The flow was tranquil, which might be caused by a barrier lower down; possibly the Dura River, which joins it at the reach downstream, has thrown up a bar. I saw no rapids near at hand, but from the hill-top I had seen white water round the bend.

No hippopotami were observed, but their huge footmarks and droppings were in the forest by the shore. A fine specimen of a Greater Kudu with magnificent horns watched us in the forest, until, growing suspicious of our intentions, it lumbered off, and the way was enlivened by the excitement of the appearance of several groups of bright-coloured antelope. Had we been moving quietly and been looking for game it is certain we should have seen many more.

On our return to camp I had the first colossal thirst that I had experienced for years, and surprised myself with the amount of liquid it was possible to drink. Three cups of tea, two glasses of lemonade, and two whisky-and-sodas were swallowed in quick succession, and this was in addition to what I had imbibed from a service water-

bottle which had been emptied on the way down, refilled in the Abbai, and emptied on the way back. The air seemed to have an unusually desiccating power.

On the 29th we left Gum Yasus for the same camp that we had occupied before at Kolaj on the Domkam. At the point where we crossed the Matin River the water was 4 feet wide and 5 inches deep, the current five miles an hour. It was here a merry little stream and only had to go about seven miles to flow to the Abbai, but our guide said that at this season it dries up before it reaches the river. The evaporation must be enormous, and it was not surprising that I had experienced an unusual thirst. There were gaps in the clouds during the evening, so I put the theodolite together and took observations on the stars and fixed the position of Kolaj as far as latitude is concerned, which made a useful check on my compass traverse of the Abbai.

For the next two days we were waiting in Kolaj for fresh mules or donkeys. Men had been sent out to search for them at each camp since we left the Fatam River, and they had always returned with the news that there were none for sale. Now we could not move until we got some, while most elaborate plans were still being made by officialdom for the apparently simple journey across the narrow strip of negro country in the Dura depression. The rivers in this region are confusing, for there are two Dura rivers as well as the Dora. Meanwhile a deputation of my own men came to say that they were going back to Dangila. I did not tell them I had decided to return from Wanbera, but thought it would be useful for future occasions to know how many of them would stand by the agreement on which they had voluntarily started—to accompany me, at extra pay, down the Abbai Valley. I told Tahai Dasta to take the names of those who were willing to go on to the Sudan. These would receive the

agreed double pay from the time we reached Tisisat to the time we returned to Dangila. Another list was to be made of those who wanted to return, and their pay from the beginning would be the ordinary pay for traveling in the highlands. Only two men had their names put on the Sudan list; the other contained sixteen names. After the lists had been made out I disclosed my plans, and when eventually pay-day arrived in Dangila, the two lists were produced and payment was made accordingly.

It is obvious that for long periods of travel down in the Abbai Valley Abyssinians from the highlands should not be engaged. If it had not been for the four Sudanese with me I should have had to abandon the expedition in January. I should add, as a matter of interest, that all of the sixteen men were willing to go down the Gallabat road from Dangila, which is equally in the lowlands and equally fever-stricken, but was already known to them. It was the superstition and atmosphere of evil enchantment attached to the Abbai Valley that unmanned them. They did in fact cross the Abbai Valley two months later by Shafartak ford on the way to Addis Ababa without any fear, but that meant only two days at the most in the lowlands.

Two fresh animals reached us at last on the 31st. Though they were not very good specimens we were able to strike camp and start for the Dura River on April 1st. Three of the weak mules ought to have gone unloaded, but they had to take turns with the packs to get us along.

The track was easy with the Dura Valley lying across our path. On our right we passed, on a ridge overhanging the depression, Assi church, the last westward outpost of Christian Abyssinia for several days. The Dura basin is mostly forest and is given up to the Negroes, who live down in the bottom; their villages of round thatched huts were clustered round the tops of small hills. On our

left, towards the Abbai, the land sloped gradually to the river and was all forest. After the Dura came slightly higher ground occupied mostly by Gallas, who have encroached from south of the Blue Nile and occupy land too low to be successfully colonised by men of Amhara stock. The Dura Valley was seen to be about 10 miles across, and the slopes gradual. The Dura ford was easy, with a rock-and-pebble bottom and two separate channels. In the left-bank channel the water was 12 feet wide and 3 feet deep, current two miles an hour; the other channel was 30 feet wide and 2 feet deep, the current running at the same speed. The flood channel was twice as wide as the other two together, and 8 feet above present water-level. Most of the river-bed was in solid basalt, the ford crossing at a sill of rock which forms a deep pool upstream several hundred yards long, in which big fish could be seen swimming in the clear water.

We camped by the Dura, and in the evening a negro chief with his band of musicians carrying weird instruments appeared on a friendly visit and brought a present of eggs and native beer. He said that the last time a European came through this way his father had brought a present of eggs and the European had given him a robe of honour. He obviously believed, like some other diplomats, in laying all his cards on the table. All the party were nearly naked except for a covering like bathing-drawers, which hung down from the waist to well below the buttocks and was tied between the legs. They had short black curly hair, and their skin was very black. The officer who was escorting me was an Amhara official from Kolaj, who had been placed in charge of these Negroes by the Abyssinian Government. He usually spoke in Agau to his interpreter, who put what he said into the Shankalla or Negro language, but the official also knew a good deal of the Shankalla tongue and sometimes addressed the chief

direct. He seemed on very good terms with the Negroes, and greeted the chief by giving one hand which the latter took in both of his. The official then raised his own hand to his lips and kissed it. The Negro saluted me by bending forward and touching the ground with both hands.

The musical instruments of the band were from four to five feet in length and were made from the narrow part of calabashes joined together. Some were held straight in front of the player like coach-horns and others sideways like flutes, but in both kinds the mouthpiece was at the end. The musicians danced while they played, stepping in time to the rhythm and swaying the body.

After thanking them and making a suitable distribution of dollars in lieu of the robe of honour, I sent them off and they departed through the forest, lighting their way with torches of dry grass. The blazing fragments that dropped from these set fire to many patches of grass, but as the forest grass had previously been burnt off the flames did not spread far, and I sat and watched the picturesque torchlight procession until it disappeared.

The altitude of the Dura was about 4400 feet. The temperatures were: in the shade at noon, 101° Fahrenheit; in the sun, 108°; and two hours after dark, 74°.

We covered the twelve miles from Dura River to Barbara on April 2nd in seven hours without encountering any difficulties, as the rise out of the lowlands at the Dura was gradual. This brought us into a country inhabited by Gallas, whose villages and cultivation were passed at intervals in the forest, the altitude above sea-level being about 5500 feet. We camped beside a stream called Alati in Weets parish, near which there was said to be a big cave, which I had no time to visit. I have heard of a great many of these caves, which I think are man-made, during my travels, and they would be well worth examining for relics of ancient civilisation. Local tradition only goes back

to the Muhammadan invasions of Ahmad Gran and local wars, when the Abyssinians took refuge in them. One cave on Saguma hill near Dangila has, my men told me, a gallery that goes such a long way into the hill that those who had been inside it had never seen the end. It was possible, when I first reached Dangila, to crawl in at the narrow entrance, but by the time I had an opportunity of examining it more closely it was blocked by a fall of heavy rocks.

From Barbara we travelled towards the Abbai once more on an easy road through Galla country. I heard of an Abbai ford at the point nearest to Barbara village, but it was described as a bad one, and even native people preferred to pass through the district of Dangija to one lower down, which was the route we were taking. Springs and streamlets were plentiful, all draining by gentle slopes towards the Abbai, whose course was plainly visible though the water was hidden. The forest abounded in trees that were out in fresh green leaf, in contrast to the shadeless districts we had left behind. We passed some Galla graveyards in the forest and noticed that the graves were built with neat rock sides raised four feet from the ground, the top covered with small stones. One which was bigger than the rest had a stake and brushwood fence round it, and some of them had poles at each end, supporting a horizontal pole on which were hung sheep's tails varying in number.

The Galla here were recent converts from paganism to Muhammadanism. Their villages were small and contained no more than four or five huts. Their sheep, called *Adal*, differ from those of the Abyssinian highlands and have fat tails and short shiny hair instead of wool, and a heavy mane like a lion. They are said to thrive on the low-country grass better than the highland breed. Although most of the grass had been burnt, the sheep we saw were

sleek and fat. Cattle and donkeys were numerous near villages.

We camped at Galasa and then made for our next stopping-place at Koko market, seven miles away, crossing the Agafari River which collects most of the small local streams (water 9 feet wide, 9 inches deep, current two miles an hour). It flowed for the rest of the way to the Abbai through uninhabited forest in which four lions had been killed the previous year. Many of the small streams we passed are difficult to cross in the rainy season and have temporary bridges of branches and trees thrown over them. Towards the end of the day's march the water in the Abbai near Gum became visible for a reach of about six miles.

Koko is a big village on the watershed between the Abbai and its tributary the Dora River, which flows in a deep depression flanked by steep-sided hills running down to the Abbai. On the left bank of the Dora is Alyume, a hill I subsequently climbed in order to get bearings and to have a bird's-eye view of the Abbai, and on the right bank stand three conspicuous mountain peaks, Jaladura, Sandi, and Siribanti; the Abbai water passes along the foot of Siribanti. The next few days were chiefly important for the amount of mapping I was able to do, and a lot of new detail was filled in. We remained at Koko until I had been able to obtain all the compass-bearings I wanted.

The view extended in all directions and for great distances to the mountains and prominent features of this part of Abyssinia. The confluence of the Welmel River, a left-bank tributary, with the Abbai was visible, as well as that of the Agafari on the Abbai right bank. Four years later I got by chance my last bearing on this section of the map to Siribanti mountain from a point north of Burye on the main caravan route from Addis Ababa to Dangila.

The air was exceptionally clear, and it was an 80-mile shot. I had to correct the name of Sandi, for I found it was marked on published maps as Abogedebo, the name of a chief, it seemed, who had once lived there and had since died. One has to be on guard against the practice of guides who, when asked the name of a point indicated to them, give one instead the name of the official who is in charge of the district.

A local guide supplied the information that from Koko there was a good trade road to the Ibantu highlands on the Abbai left bank, crossing the Abbai at Dabunko ford, which was passable by men on foot at the present season. There was another track from Alyume, with a ford that could now be crossed on foot, called Bedru, used by merchants going to Limu on the Abbai left bank.

The view of the Abbai from the top of Alyume Mountain promised to be better still, so I moved the camp nearer to its slopes at a village called Sanborse in Dangab parish, where there was a spring of water coloured red with iron. The word mountain is a comparative term. The altitude above sea-level of the summit of Alyume was 7256 feet, and as our camp to the north of it was only 400 feet lower, it did not look like a mountain as we approached it from the north. Its southern slopes, however, run down to the Big Abbai, of which the altitude would be about 2500 feet; and a mass of land rising to 5000 feet from the level of the river is certainly entitled to the term. The ascent was easy and occupied forty minutes. The expanse of country spread out before us when we reached the top was awesome beyond words and quite beyond the scope of any but special aeroplane cameras. The Abbai could be seen for a stretch of 40 miles from Gum to Siribanti. The water was not visible for the entire distance, as it was hidden in places by low forest-clad banks, but for ten miles on the reaches immediately below us we got an uninterrupted

view and could follow it along both banks until it went out of sight round the foot of Siribanti. I spent a busy two hours sketching the outline of the numerous hill-ranges and peaks and taking their bearings. The river was travelling between sand-banks on each side that gleamed white in the sun, and it might be compared to a blue ribbon with narrow white edges. There was no precipice or cliff in the ten miles, and no cascades, the land falling by gentle, thickly wooded, and uninhabited slopes to the river. On the far side of the valley we were looking on to the highlands of Limu, and across the great Didessa Valley to Wallega, the dreamland of the gold and platinum prospector. Lieutenant Gwynn crossed the Didessa River about 60 miles from its confluence with the Abbai in 1900, and in his account, though he did not state the month, he estimates the water at about 150 yards wide, 2 feet deep, current two and a half miles an hour.

A track used by Dangab people going to Limu passed my camp, and crossing the Abbai at Inasei ford runs up into the middle of the Limu range. The guide said that there was a track following the Abbai bank along which a European had come in the time of Ras Mangasha. He had heard the story from a Galla, and the man was undoubtedly Jessen. He also described a track from Akako, the district that includes Gum, as possible for riding mules but not for loaded animals. It keeps, he said, to the Abbai right bank past Siribanti and goes on to Gubba. According to his account there is another on the Abbai left bank which is better; water is obtained at tributaries, as the track does not follow the main river closely enough for access to be obtained to it at every camp.

Our next objective was the outlying and isolated high plateau of Wanbera. The direct road to it from Koko went across the Dora depression, but the descent was precipitous and was not recommended for loaded mules, so we

worked our way northward to cross the depression at its upper end.

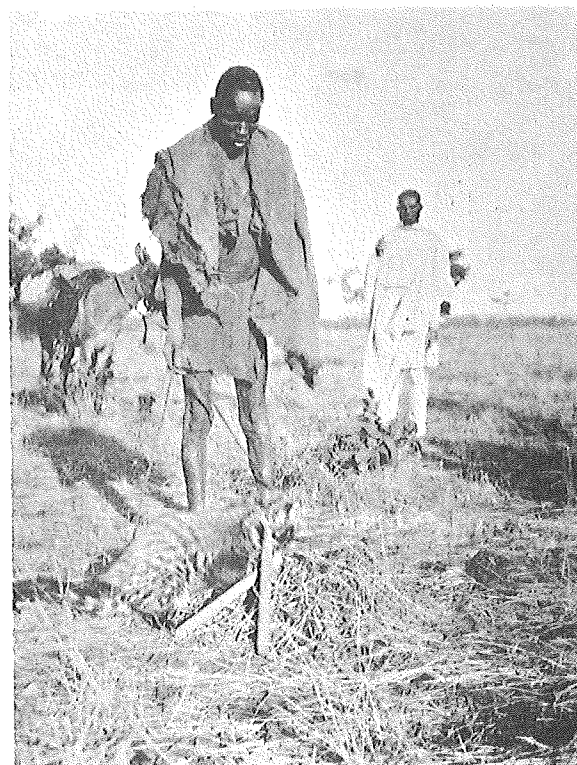
Two days were spent in returning on our tracks to the Agafari and reaching the small village of Mora, where there was a muddy spring. That evening was eventful, as we got the first clear view of the sky that we had had for two months, and I seized the opportunity of getting theodolite observations on stars which fixed the latitude of Mora, and also a round of angles taken by the theodolite to prominent peaks that were now familiar.

This district is one of the centres for the collection of civet. The peasants set traps of nooses and catch the civet cats alive, keep them warm and feed them well, and extract the civet from their glands. They also hunt and kill the animal for the sake of the skin and the civet, which eventually finds its way through Addis Ababa to Paris and London, where it forms the base of the most expensive scents. Abyssinians appreciate it in its raw state and carry it on the person in a little metal cylinder. Negroes are particularly gifted in finding civet that has been dropped in the forest by the animals. We once had a small Negro boy who joined my caravan for a few days as he was travelling our way, who had an amazing power of finding deposits of civet; he would suddenly dash off into the forest and return with some of it wrapped in a leaf, which he divided among the muleteers as he found that I was lacking in enthusiasm. I never quite understood what function this scent performs for the animals, but assume it is that of sexual attraction.

Mora to Bar River, on April 10th, was a short and steep but easy descent of eight miles into the Dora depression. The bottom of this is nearly flat for ten miles to the precipitous slopes rising to Wanbera, and is mostly uninhabited forest with much bamboo jungle. Our guide and most of the inhabitants of Mora were Shinasha tribesmen.



ZAKAS FORD, BLUE NILE, AT AKAKO (p. 333)



NEGRO WITH CIVET CAT AT MORA
The two sticks act as a muzzle

The climb up Gasen Gasu, the Wanbera eastern escarpment with its 3500-foot rise, occupied most of the five hours we were travelling on the 11th. It was a steep pull and tired both mules and men, but there were no bad places. We loaded up and started by the light of bonfires and reached the bottom of the cliff at dawn to save the mules from the heat of the sun. The Dora River was crossed near the bottom of Gasen Gasu, and seems to hug that side of the depression, which is rather strange in formation and shape and is of volcanic origin. Wanbera is a comparatively level plateau about 10 miles across and 6 miles from north to south, with an altitude of 7000 feet above sea-level. As we reached higher ground good views were obtained far to the north of Belia and Dangur, which were similar to Wanbera, being high outliers or "land islands" of the main Abyssinian plateau. They are most interesting from a geological and zoological point of view, and seem to me to be the resulting debris of independent volcanic eruptions. The Tirim River on the top of the cliff is the headwater of the Abbai tributary, known when it gets into the lowlands as the Naga. The Kasa, where we camped, was a very small stream but supplied all the water we required.

We went on about six miles next day to Wanbera village, one of the most pleasant camps we had been in throughout our journey. The high altitude makes the climate cool and delightful. The Alaltu River, beside which we pitched our tents, rises near by in springs of clear water and flows rapidly through a plain of bright-green grass, cropped short by cattle, sheep, mules, and horses. On some pools were wild ducks that were amazingly tame, as they had never been disturbed. I saw Yellow-billed Duck, which are birds of the high plateau and are not seen in the lowlands, and a small party of Widgeon, one of the wildest of migratory ducks, that here allowed a very close approach. I found, too, a new subspecies of grass-warbler—the

Wanbera Brown Grass-warbler. These birds had wandered from the main plateau at some remote period and, having been cut off from intercourse and interbreeding with the original species, had developed darker shades of plumage which enable them to be distinguished as a separate race.

Wanbera is a large village of a few hundred houses and is important chiefly for its market and as a centre for caravan traffic. One set of merchants plies between there and Roseires in the Sudan, and another goes to the Abyssinian main plateau; both carry the famous coffee grown at Kitar in Wanbera district. We had reached an altitude where the Amhara can live, but the population is strongly Galla. Farther north there is Belia, and farther north still Quara, and both of them are outliers occupied by Abyssinian highlanders. The church which stands here looking out on the lowlands and the Sudan can claim to be the western outpost of Christianity.

I had a three-mile ride to the western bluff on the 13th to see the Abbai Valley and the lowlands near the Sudan frontier, 60 miles away. Here a new, extensive, and entirely different view of Africa was displayed map-like before us. Jebel Faronge, just inside the Sudan, was the farthest point to which I was able to obtain a bearing, but with a clearer day and the help of a man who knew the Sudan hills well by name, many more could have been identified and added. My task was perplexing because the Abyssinians and Sudanese each have their own names for hills and rivers, and since the maps near the frontier were made from the Sudan side it was difficult to identify features by the name the Abyssinians gave them. The Abbai water was not visible, but the hills on each bank were pointed out by my guide, who indicated its line throughout the hundred miles of its course that lay within our range of vision. This included the Didessa confluence and a conspicuous hill called Beri. I had to disentangle Beri

from the name Aba Timbaho, meaning in Arabic Father of Tobacco, which it had been given on our maps, and again traced the latter name to a negro chief who had lived there. I did not know at the time that I was eventually to see Beri at close range. We were now looking over towards an Abbai that was a completely changed river. It had left the mountains for the last time, although it was still in undulating forest lands well sprinkled over with isolated granite hills, mostly cone-shaped and rising from 500 up to 1500 feet in height.

But, tempting though the prospect was, I could take my caravan no farther down that lonely valley. Even if I could induce my men to come with me, the result, as I have explained, might be disaster, so here at Wanbera, with the main part of my plan accomplished, I must make an end. I turned away from the scene with a feeling of acute disappointment. I had wished to continue the journey for many reasons, but chiefly in order to carry my survey down to Roseires, where my compass traverse could be closed on the top of the Blue Nile gauge, the first point of contact with any precise level. I hoped to return some day, but as I stood on the edge of the cliffs there seemed very little chance of my ever being able to do so.

On my return to camp I found that a Galla merchant had just returned from Roseires and had come to see me. I had wild hopes that I might arrange for him to take me down, but he said that it was too late in the season. A week or two before, several caravans had gone to Roseires with coffee, but no more would venture until after the rains. Merchants going only to Gubba, the negro province within Abyssinia, would load with onions from Wanbera and bring back cotton, but that was all. They considered that the Balas River could not be crossed until December 1st. He thought my mules, loaded as they were and not being hurried, would take three weeks to reach Roseires.

There was nothing to do but turn back.

Of the return journey to Dangila little need be said. It was still through unmapped country, and was occupied with survey work, but this bears only indirectly on the Blue Nile in so far as it deals with the location of its tributaries, which in its turn shows the fall of the land. On the way we passed near a part of the main escarpment at Mazarkanye which seemed to be less steep than usual, and I noted the fact although it did not seem important at the time. Some years after, as I have already mentioned in an early chapter, when a road was suggested from Lake Tana to the Sudan and an alignment was sought that avoided the climbing of the formidable precipice which was a feature of all known routes, I was able to suggest Mazarkanye and a line over Dimsa saddle, by which I crossed over the escarpment to Dangila, as a solution of the difficulty.

CHAPTER XXVII

THE SECOND BLUE NILE RECONNAISSANCE

February 2–April 13, 1929

LITTLE as I had anticipated it when I bade my melancholy farewell to the Abbai in 1927, only two years elapsed before I was given the opportunity of completing the compass traverse of the Blue Nile which I had left unfinished and in the air at Wanbera and continuing the journey down the river to Roseires and Khartoum.

The personnel of my party was to be much the same as before. Ras Hailu, at my request, once again sent Shaka Mangasha to accompany me to the boundary of his governorship, which was the Balas River. Zauday Kidanewold had replaced Tahai Dasta as interpreter, and Ombashi Idris had taken Ombashi Saleh's place as N.C.O. in charge of the two other men of the Sudan Police of my escort.

We had planned to arrive in Wanbera in December so as to enable us to go into the lowlands, reach the Sudan, and return during the months that were normally free from fever. The day before we were due to leave Dangila all was ready, stores and equipment, saddles and tents were listed and checked, and I went for a walk in the evening with Ombashi Idris to shoot quail, a mile from the Consulate. We had not gone far when we were surprised by a noise like the rattle of musketry and, turning, saw a big column of black smoke rising into the sky from the direction of the Consulate and heard the high-pitched cry of the Abyssinian women and men which is known throughout the country as a call for help. We ran home as

fast as we could, but by the time we got there half the Consulate buildings were smouldering heaps of ashes, for the woodwork of the walls and the thatched roofs are little more than bonfires once they get alight. The loud reports we had heard were caused by the burning of the bamboos that support the roofs—the air confined in the hollow interior expands and bursts with a loud explosion when they burn. There was little more to be done, as the men, who were luckily assembled and were building a haystack at the time, had restricted the fire to one side of the compound by beating out the flames with tree-branches. No lives had been lost. The men's wives had been able to get out of their huts, but had saved very few of their belongings. The children had instinctively taken a line of their own and were found in a river near by with only their heads out of the water, and the mules had been grazing in the forest. My own houses and household equipment had been isolated and were saved, but the big stable and store-room had burnt with the rest, and every tent and saddle was destroyed. This was a staggering blow, as tents and saddles could not be obtained nearer than Addis Ababa or Khartoum, and by the time they had been replaced three months would have passed, and the journey would have had to be abandoned. The story of the origin of the fire was simple. A woman in the Sudan Police quarters had been baking bread too near the tinder-like walls of the hut, and the grass in the walls had caught fire. Blazing portions of the thatch had been wafted into the air by the wind to fall on other buildings and set them alight.

Ras Hailu, when he heard of our sorry plight, was very sympathetic and showed it by giving very substantial help, and even offered to lend me European tinned goods and wine from his store. I had enough of these, but he came to the rescue with equipment and sent me Abyssinian saddles, one of his own woven sheep's-wool tents for

myself, and bales of calico and a tailor to sew them and make tents for the men.

Two months later, we started with the improvised equipment. There was just time to do the journey, but two months of the season's best weather had been lost, and the full programme that I had planned originally had to be curtailed.

On February 15th, 1929, we arrived once more in Wanbera. I enquired about the track from there to the Abbai near the Didessa confluence. The road was not difficult, the Wanbera people said. The first camp would be at Kitar, the second at Gouchar, the third below Gouchar hill, and the rest of the way would be more or less level, but probably the track would be overgrown, as it was little if ever used. The fourth camp would be at the Gabo River, the fifth at the Matie River, and the sixth at Kalacha. From Wanbera there was a more frequented track going to Wallaga and crossing the Abbai at Ancho. Either of these journeys would have taken more time than I could spare even if I merely went down to the Abbai and returned to Wanbera at once. The men said it would take thirteen days, so I decided to rejoin the Abbai at Beri hill, but thought I could spare three days to go to Kitar, the coffee-growing centre, nine miles away, and overlook the Abbai Valley from there.

Kitar is an outlying cone-shaped hill on the Wanbera south slopes, and the villages clustered round the base of the hill present a glorious vista of mountain scenery. It is more densely populated than most Abyssinian districts, and there is much cultivation, the coffee of its gardens being famed throughout Abyssinia. As we came down to it from above on February 18th it resembled a Swiss scene. The land was a chess-board of seedling beds and plantations in full bearing, irrigated by mountain streams carried in channels cut round the hill-sides. We camped in the

midst of the gardens at 6500 feet above sea-level.

Next day we went to the top of Kitar cone, a 2000-foot climb, doing the first 1000 feet by mule and the rest on foot. The cone is composed of rocks of blue granite. The summit would make a good station for bearings along the Abbai Valley from Siribanti to Beri, but survey work was defeated by smoke from grass-fires which hung over the lowlands and the valley, so that visibility was confined to 20 miles. At one point we looked along the top of the pall of haze hanging perfectly level and opaque over the land.

On the top of the cone the old fortifications of the Shinasha are still visible along the crest where a rampart of rocks was erected. We were informed that when four generations ago the Gallas from Wallega crossed the Abbai and invaded Wanbera, they stormed Kitar hill with spear-men but were defeated by the Shinasha. They came a second time, led by their King Jelo Wabi, who drew up his troops in two columns. While one made a frontal attack against the ramparts, the other, led by the King, came round to the east and up the hill, getting in at the back of the Shinasha and routing them. Thus the Galla took possession of Kitar and the Wanbera highlands, driving the Shinasha to the lower lands. The penetration of the Gallas farther north was afterwards checked by the Amhara under Negus Takla Haimanot, King of Gojjam. The Gallas were in their turn defeated on the top of the eastern bluff of Wanbera at the top of Gasen Gasa precipice, where we had seen a large assemblage of stone-covered graves on the scene of the battle. King Takla Haimanot, having received the submission of the Galla, treated them well and built a church for them at Wanbera, and many have been converted to Christianity.

The Kitar coffee plants were brought by the Gallas from Wallega. It is considered superior to the coffee of Zegi and fetches a higher price. In Kitar the plantations

are exposed to the sun, whereas in Zegi the crop is grown under the shade of tall trees, perhaps because in Zegi no irrigation is possible and the coffee plants have to depend on the rain. I was told that the seed is planted while the husk is red and soft and sown in dug beds; water is given a fortnight after. The seedlings are transplanted first in July, that is, in the first month of heavy rains, and a second time when they are well-grown plants, when they are transferred to permanent plantations. The crop was being gathered when we were in Kitar. The berries are taken to the houses and dried in the sun to remove the husk.

At the same time the peasants showed me their process for malting barley to make *talla*, or beer. Barley seed had been soaked in water, and roots had been allowed to grow up to the time when the leaf was on the point of emerging from the seed. During that time the flour in the seed had been converted into sugar by the seed-leaf or cotyledon by a natural process. The corns were kept separate by periodical stirring to prevent the roots from getting into a tangled mass. This was then spread out on a skin to dry in the sun, which kills the plant and corresponds to the kilning process. The knowledge of making barley malt extends throughout the length of Abyssinia, and the process, though primitive, is essentially the same as that carried out at the present time by European maltsters. The Abyssinians probably learnt the art from ancient Egypt. I am indebted to Dr. Jones of St. Catherine's College, Cambridge, for an early reference to the brewing of barley beer. He says that Herodotus seems to imply that wine made from barley as used by the Egyptians, who had no vines, was a healthy drink, but Aeschylus in his earliest play, *Suppliants*, 953, of about 490 B.C., taunts the Egyptians with being drinkers of "intoxicating drink from barley" and therefore effeminate.

When we moved on from Wanbera to Manisibu on the

22nd we were lucky in finding a guide who was the equivalent of the game warden of the lowlands. I had arranged to go direct to Beri hill, but he said that the track would be waterless at that time of the year. The only permanent stream was the Shar, a tributary of the Balas, and we ought to follow it. I agreed, as it suited my mapping quite as well, and after reaching the Abbai we were to go upstream to Beri before continuing the journey downstream to Roseires. After a descent of some 600 feet we touched the source of the Shar, here called the Lomicha, a stream in a forest of big timber. Rivulets were diverted in canals round the hills to water the coffee-gardens of Golay. On the Shar right bank was the high hog's-back range of Kutan, well studded with Galla villages. The range gradually lessens in size towards the low country. Hills too low for the Galla are occupied by the Shinasha, and below them are the Shankalla.

The chief official of Manisibu district was a woman. She met me surrounded by her officers, who were men, and carried out the reception with the assurance of a man, dressed in the black sheep's-wool cape and broad-brimmed grey European felt hat that has become the accepted uniform of Ethiopian officialdom. She was a good-looking woman, forty years of age, and she arranged for me to buy corn for the mules, since this was the last place where it could be obtained, all the rest of the way to the Abbai being uninhabited forest. The track on which we began the journey was that used by merchants going to Gubba.

Our guide, Ato Marra Agajay, a Galla who spoke the Galla, Amharic, Shankalla, and Agau languages, had been supplied by the Government official at Wanbera, acting on Ras Hailu's order, which Shaka Mangasha carried. He was the first guide that I found it possible to praise. He really knew the way through a deserted country where water was scarce and good leading was important. He had,

from his own account, been a mighty hunter and from that had risen to be appointed game warden, a good example of the keeper being a poacher turned inside out. He explained that we were shortly going through elephant country, and asked me not to shoot any. I assured him that I only shot big game with a camera, but I was not sure that my men might not be tempted to have a pot-shot, so I had them warned again that the use of their rifles for shooting any kind of animal was forbidden on pain of dismissal and forfeiture of pay. An Abyssinian entirely loses his head when he sights game animals. If he has no rifle he will tire himself in a hopeless chase after even one of the big antelopes by running after it.

For the four miles from Manisibu to Sodu there were a few difficult descents and we rode our mules very little. I was saving them as much as possible, as they had still to go 350 miles to reach Roseires and return to Dangila.

I was puzzled by the large granite boulders that we passed at intervals. They had circular cavities on the top, and I thought it was due to some peculiar form of erosion, but some days later I discovered that they marked the sites of deserted Shankalla villages. Everything had been consumed in the forest grass-fires but the stones which had been used by the negro women for grinding their corn. These negro tribes are semi-nomadic and settle in a district for a few years and grow millet and ginger; before the ground becomes exhausted they move off to pastures new, taking the name of their village with them, a custom that may be convenient for themselves, but that has distinct disadvantages in map-making.

From Sodu to Katabala on the Shar River next day our track was a steep descent; during the march we dropped from 5680 feet above sea-level to 2670 feet. We had to dismount and walk for an hour and a half, but there were no difficulties for loaded mules. When passing through

patches of tall forest grass which had been missed by the grass-fires it was not easy to see the track. The Shar where we crossed it was swift, and the water clear. It contained fish of one pound in weight, some of which I caught. This part of the country was formerly occupied by a negro chief called Egzaw, and the name has been recorded as a place on published maps. He is now dead and his tribe has moved elsewhere.

We went by the ruins of a Shankalla village, on the outskirts of which we saw what seemed to be a child's grave, a small rock-covered mound. This, the guide said, was where the eye of a lion had been buried to bring luck to the tribe and to watch over the village. The killer of a lion also boasts of it for days afterwards, going about shouting of his valour to all and sundry, gives a feast lasting for several days, and dresses in women's clothes.

A level track through the orchard type of forest, keeping close to the Shar River, took us the ten miles on to Sergumi on the 25th. We began the day with a fog that obliterated all the landscape beyond a few hundred yards, and the sun had not got through at noon. After we had gone five miles the Gubba trade road, which we had so far been following, branched off to the right, crossed the Gorey Kala, a small tributary of the Shar, and went on to ford the Balas River. We turned to the left, over the Gorey Kala, and struck a line into pathless forest. Elephant tracks were the only roads, but as the grass was burnt it was not so bad as it sounds. We came on many signs of elephant: big trees were uprooted close to camp during the night, and in the morning there was fresh steaming dung where they had passed by.

We often saw the Honey-guide, a bird about the size of a starling which keeps up a monotonous chatter, and were told that it would, if followed, lead the hunter to honey, elephant, lion, or buffalo. I had heard the story, which is

known far and wide, and was incredulous at first, but eventually proved the truth of the honey part of it in convincing style. I forgot the bird's reputation when I saw one flying to and fro to a hole in the trunk of a tree and chattering continually. Being anxious to find its nest and discover its breeding habits, which are at present unknown, I rashly climbed a bank and plunged my hand into the hole, expecting to find eggs, but hastily withdrew it covered with bees and honey and beat a retreat down the bank. My men always followed honey-guides and usually came back with honey. I did not have the chance of putting to the test the bird's ability to lead one to lion, buffalo, and elephant.

Turuna Habasha, who was an indefatigable fisherman, caught a catfish weighing ten pounds. It was *Heterobranchus longifilis*, the kind that inhabits the rivers in the lowlands, a hideous brute with a face like a gargoyle, a beard and moustache of long tentacles, and a fin on the back near the tail, which is a fleshy excrescence. I caught two kinds of roach-like fish weighing half a pound each. These were in pools of water as clear as gin, and at first took the bait, which was clumsily presented, without fear—one could see the whole process of swallowing it—but after they had seen their comrade leave the water they would have no more of it, and I had to go to a fresh pool each time I caught one.

We were camped only 100 yards from the river, and sandflies or midges were a nuisance during the evening.

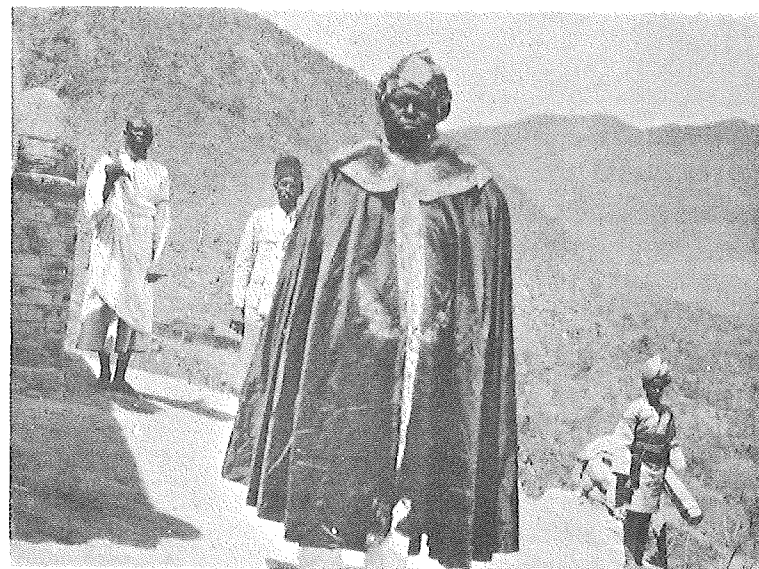
On the next stage, from Sergumi to Bandi (8 miles), unburnt grass caused delay in places. Mules were quickly lost in it, and the caravan had to stop at once while men searched and found them. The fog had lasted all day and through the night, but in the morning a slight breeze cleared it away and the sun came through. We crossed the sandy bed of the Gorey Guda, which from the high flood-

marks seems to be a big river in the rains, and crossed and recrossed the Shar. Traces of elephant were to be seen all the way, and the first men of the caravan had to turn a lion out of the place we had selected for camp. They told me they thought he was not annoyed, as he went off wagging his tail! That was not the end of the muleteers' adventures, for they went to the river to cut green grass for the mules' evening feed, and came suddenly upon a large python curled up on the reeds. All of them ran away.

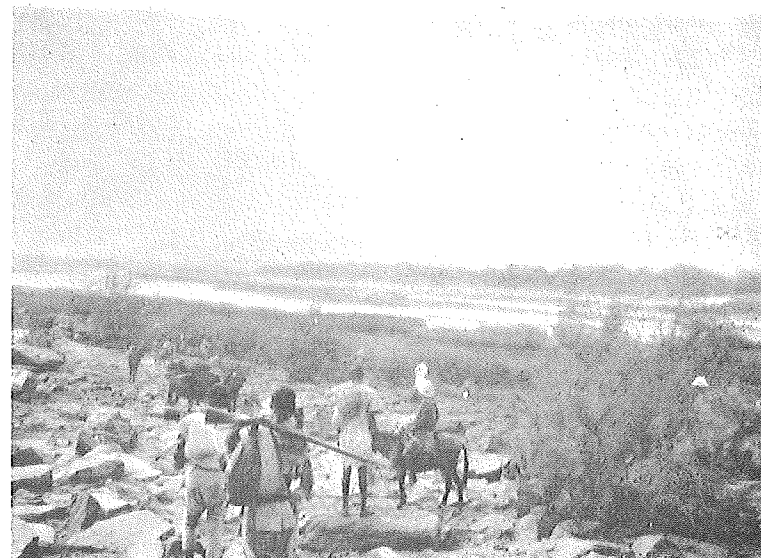
The Bandi River comes from Gum Gum hill. It is a perennial stream and supports a negro settlement on its upper reaches, which we did not see.

A ten-mile journey on the 27th brought us to the Balas. We had first to cross the Shar several times, for having reached its level it began to make some circular bends. We travelled in the deep sand of its bed for the last two miles. Its junction with the Balas is a fine sight. Big sand-banks had been thrown up during the flood season, but the water was now almost at its lowest. Antelope of several species were very numerous on the way.

In the evening I walked along the banks of the Balas to its junction with the Big Abbai. I came upon the Abbai unexpectedly, as the Shar and Abbai were shown on maps as three miles apart, whereas the distance is barely a mile. The Balas was Ras Hailu's boundary, and on the far side we saw the smoke of the fires in the camp of the guards who had come to meet me under the orders of Dejazmatch Banja, the negro Governor of Gubba, the next province. Shaka Mangasha blew his official Abyssinian Government trumpet to let them know we were friends and not raiders. The following morning a negro corporal came across the Balas to see me, dressed in a smart khaki uniform with one stripe on his arm. His movements and British method of saluting made it obvious that he had served in the Sudan and had retired. He said that Dejazmatch Banja, who had



DEJAZMATCH BANJA (HAMDAN ABU SHOK), GOVERNOR OF GUBBA
A descendant of the Kings of Fung



BLUE NILE, WITH BERI HILL IN THE DISTANCE

letters from me and from the Abyssinian Government, had sent his son with an escort to meet me and take me through his country, and that the party would meet me when I crossed the Balas. I told him that we were going to Beri and would return in three days, and asked him if he could get some millet for the mules. He said he would try, but the nearest village was three days away.

The track along the Abbai bank from the junction of the Balas and the Shar towards Beri hill was bad when we took it next day. Sometimes it led us down by the water's edge, then we climbed up the soft sandy banks to follow hippopotamus paths in long unburnt grass, where men and mules were completely hidden, and often the men in front had to cut away the undergrowth to let the mules through. When we first struck the Abbai the water was 300 yards wide, the main channel in which the current was passing being 80 yards wide with a speed of nine miles an hour. Above this the water formed a narrow lagoon. Opposite Beri the Abbai was in one deep channel. For the whole of the four miles that we saw the river the bed was in granite rocks which lined both banks, and there were cataracts and rocky islands.

The forest near Beri was all rocks, and there was no grazing, so on March 1st we had to move camp a mile downstream, where there was green grass by the river. We spent some time in setting light to the tall forest grass to facilitate our journey to Beri hill and for our return march to the Balas. Our shade temperature reached 103° Fahrenheit, and my clinical thermometer registered 103° . I wondered how, if it became necessary to use it, I could take the temperature of a man whose blood was below 103° .

Beri hill, which we ascended on the 2nd, was about 1600 feet high, from barometer readings. It is composed of granite rocks, some of them very big and balanced on

each other as if they had been placed there by gigantic arms. We did not get quite to the summit, as the pinnacle is sheer rock. Shaka Mangasha sprained his back in climbing over the rocks, and as he could not ride it took a long time to get him back to camp. On the top we got a good view of the water of the Abbai for eight miles upstream, which was 50 miles from the bottom of Siribanti, where I had last looked on the water, two years before. The last place where I had read instruments on water-level was at Zakas ford, 2562 feet; opposite Beri the reading gave the water-level as 1789 feet, showing a drop of a little over 700 feet in 120 miles, and we know by Jessen's account that there are no big drops and that the river has descended by a succession of small cataracts. The guide pointed out the confluence of the Dabus, a left-bank tributary of the Abbai, marked by a line of dark-green trees along the banks. He said that another river, called the Yabus, came from Farango hill in the Sudan and joined the Abbai near Beri. Lieutenant Gwynn, who crossed it about 40 miles from its confluence with the Abbai in 1900 (month not mentioned), found it about 100 feet wide, 3 feet deep, slightly in flood.

If anyone were travelling in this neighbourhood the section of the Abbai between the confluence of the Didessa and Dabus, about 35 miles of the river, would be worth exploring. It is the only part of the Blue Nile Valley on which my information is not first-hand. I only sketched it and got my bearings on the hills near the river from a distance. Jessen actually travelled along it and gave a good general description, but his methods of obtaining the positions of his detail are not sufficiently precise to convince the cartographers. My own position of the Blue Nile's course at its big bend northward after passing Siribanti places it nearer the Wanbera highlands, or some 15 miles east of its position on published maps, but my

work lacks cross-bearings taken from the river itself on this section, which would be necessary before it could be considered of sufficient accuracy to justify a change in the map. Had the conflagration at the Consulate not delayed my departure for two months I should have carried out my original programme, travelled along this section, and obtained the necessary bearings.

The "city" of the negro chieftain Aba Timbaho was on Beri hill. He had been conquered in a local war with Dejazmatch Banja eleven years before, and he and his men had scattered. We saw the remains of his settlement half-way up the hill, marked by much crockery lying on the ground just as they left it when they fled.

We returned the nearest way through the forest to the Abbai banks. Here the channel is cut through the western foot of Beri hill range and is in a narrow rocky bed of granite. The rock walls of the "gut" are high enough to contain the water in flood, and one wonders how it gets through. The water was 50 yards wide, with a tranquil flow, and looks very deep.

We had to wait a day at Beri camp for Shaka Mangasha, whose back was too painful for him to travel. The guide pointed out a ford close at hand. It was too deep then for men to cross on foot, but in May the water only comes up to a man's knees.

On the 4th Shaka Mangasha was a little better and just managed, with the help of his servants, to hobble back to the Balas. The water of this river was 30 feet wide, $1\frac{1}{2}$ feet deep, current four miles an hour. The flood high-water mark seen on steep cliffs of dry mud was 30 feet above present water-level. This river rises within a few miles of the western shore of Lake Tana, drains a big area of heavy rainfall, and becomes a formidable torrent in the rainy season.

The aneroid barometer gave the same readings for the

Abbai-Balas junction and the Abbai near Beri hill, namely, 1789 feet above sea-level, showing an almost level bed for about six miles.

The Gubba men had obtained some maize, and when we got back to the Abbai-Balas junction the mules had their first feed of corn since February 22nd. We found mosquitoes troublesome, and the men were attacked by a red-coloured travelling ant during the night. On the high plateau the soldier ant that is so much respected is black. Game was plentiful and we saw several kinds of antelope, some of them in big herds.

We forded the Balas on March 6th and entered the province of Gubba, where we were received by a new escort, all Negroes dressed in khaki, under Dejazmatch Banja's son. He was young and said very little, but carried out his duties efficiently. Marra, our guide, had been paid on the Wanbera side of the Balas and returned to his home when we crossed the boundary. We now followed a track along the Abbai right bank, keeping within a quarter of a mile of the river. On the left bank Gongar hill was close to the Abbai, but we passed no rising ground until the Gongar range was left behind, when the river flows between forest-clad hills of a few hundred feet and enters a narrower passage between Yaringhe hill on the right bank, 800 feet high, and another hill 400 feet high on the left bank. It has cut a groove for itself between the two, which appeared to be one of the best sites for a dam that I had seen. There were rapids towards the north end of Gongar, and that indicated a slight fall, but my barometer gave the same level for the river-bed as at Beri, and although the instrument cannot be depended on to give a difference in height of only a few feet, this shows that there is only a slight fall in the river for many miles. All the rocks seemed to be granite, and there would be ample supplies for any size of building on the spot. Between Yaringhe and the

left-bank hill I guessed the water to be 300 yards wide; the flow was tranquil, and it seemed to be deep. The flood channel would be 400 yards wide, and the high flood mark 30 feet above present water-level. The dam need not be much longer than 400 yards, for the banks rise steeply, and a dam about 50 feet high and 800 yards from end to end would probably store water for miles in the Abbai, the Balas and Shar river channels, and on a certain amount of forest country as well. It is, of course, a case where proper levels would have to be taken. This site is not very far from the Sudan, which gives it advantages in the matter of transport for material over some of the inaccessible reaches I had seen, and it looks a likely district to examine for a reservoir site if a reservoir is ever required.

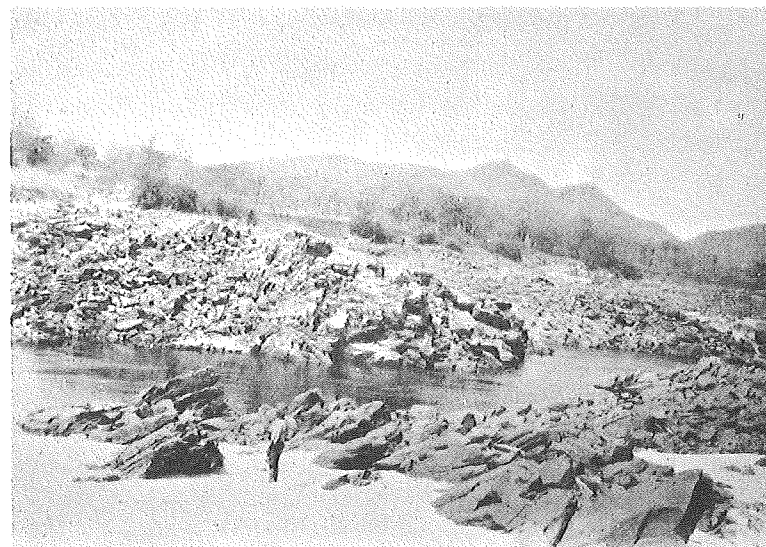
We were told that there was no name for the place where we camped on March 7th, or for our next camp, eight miles farther on. The road was level and passed through uninhabited forest, keeping close to the Abbai, and once we travelled for a time along a rather bouldery stretch of the shore. The river-bed seemed to be falling a little more on this march than it had been—the water was moving more quickly, and there were more rapids—and this impression was subsequently borne out by the instrument readings. The channel was cut in solid rock on both sides.

The Negroes who once inhabited this part of the country had, we were told, moved into the Sudan. There is gold in the sand of all tributary torrents as well as that of the Abbai, and distant districts send parties to wash for it, but I gathered that the amount they find is very small. The Gubba Negroes spend the dry season in their fields, cultivating their crops of millet, tobacco, and rain-grown cotton, and wash for gold in the rains. Gold-washing begins at the Didessa, where negroes and Gallas work at

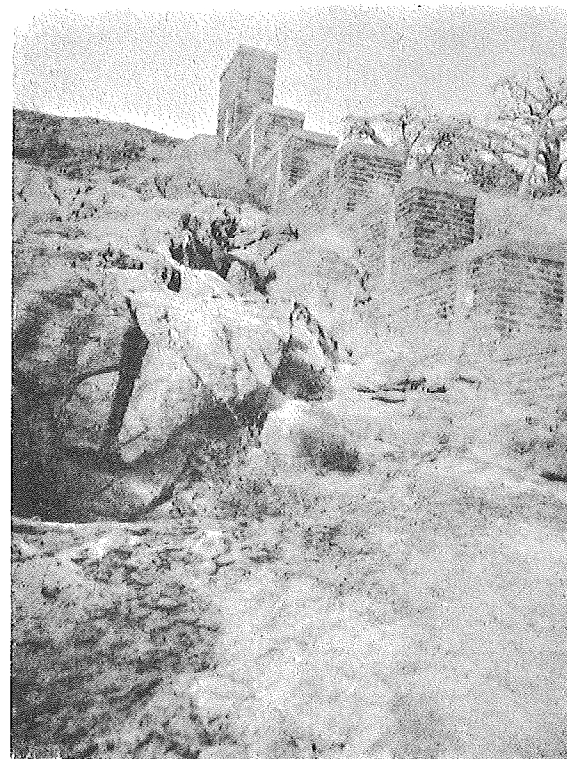
it, and is not carried on downstream of Mashasha where the sand gives place to pebbles and boulders. The speed of the water and the submerged rocks and rocky islands make these reaches of the river unsuitable for boats, and no native craft were seen. We noticed several small patches of native tobacco, not the well-known sweet-scented bell-shaped flower, but *Nicotiana rustica*, a round-leafed plant with a spike of small white blossoms. The leaves are cut up and dried and are sold in cones the size of a sugar-cone. This tobacco was being grown on sandbanks by the river with castor-oil plants and gourds.

We were cutting a corner through forest across a bend in the Abbai for most of the day's march of six miles on March 8th. There were hills, and we crossed a low saddle between them. The Yerkundu hills, 1500 feet high, came in sight, and the Abbai flows through a valley to the immediate left of them. Our path then entered a main track to Gubba, the capital of Dejazmatch Banja, which lies some 12 miles away among the hills. The whole province is called Gubba, and the name is applied to the residence of the Governor, although the more correct name for his town is Hulgizi. I did not go to see him while I was on my way to the Sudan, but sent him a note to thank him for the escort and guides, and said I hoped to pass through Hulgizi on my way back to Dangila and would come and visit him then.

Our camp was pitched at Mashasha, which was the first inhabited village we had seen since February 23rd, and, strange to say, the first I had seen near the river-banks for several hundreds of miles. Here we were able to buy millet for the hungry mules. The Abbai at Mashasha was in a rock-bound groove of its own cutting. The roar of cataracts could be heard both up and down stream, especially at night when all was still, exactly like an express train in the distance. The water opposite Mashasha was so



BLUE NILE AT MASHASHA WHERE A STONE WAS THROWN OVER THE RIVER FROM BANK TO BANK



BLUE NILE GAUGE AT ROSEIRES, SUDAN (p. 366)

narrow that I was able to throw a pebble over it, and Ombashi Idris threw one half-way up the opposite bank. It was not surprising that I was disappointed in the size of the river that I had come so far to admire. Where there was still water we saw a small native rowing-boat made of wood, the first we had seen on the whole river. It looked as if it was used for ferry work.

From this village we went on to Dashara on the 9th (9½ miles). The road was easy and kept about half a mile from the Abbai, which could again be described as a large river as the water was 300 yards wide. It was deep and the flow tranquil; hippopotami were seen in the pools, and a boat could travel on all the reaches that I saw. Villages were numerous on the way.

The dogs of the villages were all of one type, kept and bred for hunting, and resembled small greyhounds. These Negroes are skilled hunters, and in the forest I came upon a noose set to catch francolin, which resembled an English rabbit wire.

On the 10th we did only a short march of under three miles, as I wanted to spend a little time taking photographs of the Sudan frontier. The road was level and well used, and the Abbai ran close by, and gave us glimpses of a broad river without cataracts. The frontier is a *khôr* or river just downstream of the village of Bumbode, often pronounced locally as Lombardy, where we halted. The centre of the bed, or *thalweg*, forms the frontier of the Sudan. It was the channel of a sandy torrent, then dry, which joins the Abbai there. When one looked on to the other bank of the *khôr*, the Sudan bank, it presented a most peaceful scene. One could see no frontier guards and no Customs house, and apparently there was no road, but the track continued in the direction of Roseires. I took my photograph of the sandy river-bed, which was a perfectly featureless picture, and returned to camp.

In the evening the river at Bumbode was illuminated by small boats and rafts burning torches or bright flares of some kind. These craft belonged to the fish-spearers who wait on them for fish to be attracted to the light, either by curiosity or by some form of fascination, when they can be speared in large numbers. This seems to be a peculiarity of the fish on these reaches. I have since tried lamps and electric torches from rafts on Lake Tana and on other rivers, but never a fish came near or took any interest, whereas at Bumbode my cook's-boy went down to the river edge after dark, taking a hurricane lamp in order to see to wash some pots, and a big fish leaped from the water and landed on the shore beside him. He recovered from his surprise in time to secure it.

Within ten minutes of starting from camp on March 11th we had crossed the boundary *khôr* and were in the Sudan. The Big Abbai now became the Blue Nile, and the remaining stage of the journey begun in 1927 had been completed.

Two miles farther on we reached the head of the dry-season motor road running to Roseires, which had been used for motor traffic for two or three years, where there was a small hut used as a rest-house. It was no longer necessary for me to make notes on the river or take any bearings in a country to which a far better surveyor than I am can obtain easy access, but I particularly wanted to see the cataract at Famaka up to which Jessen, starting from Khartoum, had got with his launch, and where he had to turn back, as travel by water is impossible beyond this point on the Blue Nile, Roseires being the limit of practical navigation. At Kambul, where we camped, there were rapids once more, and I watched a man wade across the river. Most of the way the water was not above his knees, but in the deepest part it came up to his waist.

Next day our camp was pitched at Famaka on the right

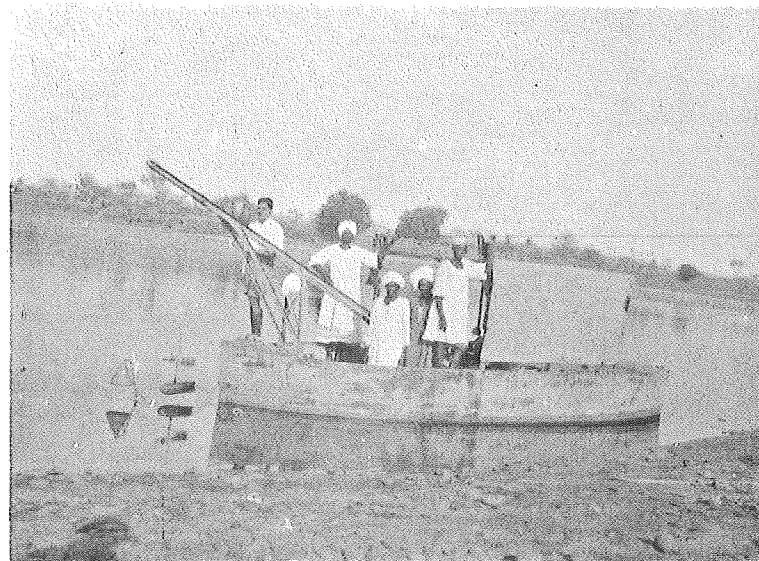
bank of the Blue Nile, just under Fazogli hill, which is on the opposite bank. The river had cut a deep channel through rocks at the foot of it, and the cataract is on the downstream side of the barrier. Upstream of the barrier and of Fazogli hill there is deep still water and a whirlpool. It was difficult to explain to the natives what I wanted, as the Jessen episode of so long ago had been forgotten, but eventually we found someone who seemed to remember him. He told us that the cataract would be best seen by camping at Abu Shendi, so I set out for it on the following morning.

There were rocks on both banks from Famaka to Abu Shendi, and the river is in a narrow channel. I enlisted the help of a guide and was taken upstream of Abu Shendi to a rock barrier over which the river when in flood tumbles and falls and rises again in a confusion of a hundred whirlpools. When I was there it was almost at its quietest and lowest level, but I could imagine the scene of the little launch battling its way among the whirlpools, the adventure that is so modestly described by Jessen in his book. It was a miracle that he got so far and returned alive.

Soon after leaving Famaka with the caravan in the morning we had met on the road two Government motor-cars kindly sent out by the District Commissioner from Roseires to fetch me. We were unaware of this kind intention and were bowling along as usual, when the two cars came suddenly round a corner, and my mules, which had never seen a motor before, scattered in all directions and disappeared in the forest. Two of them were not recovered till the following day, and as one had my office files and cyphers I had to wait until they were found. I then went in to Roseires in comfort, while Zauday Kidanewold and Shaka Mangasha came on with the mules, which arrived by forced marches on March 16th.

At Roseires I read my aneroid barometer on the top of the Blue Nile gauge, the first check I could make with a point that was connected with accurate surveys and with sea-level, and I was able to tie on to it all my observations on the Abbai back to Lake Tana. I was also able to see the taking of the current gauge, which is read every two days, the operation being in the charge of an Egyptian irrigation official. His apparatus was an iron barge and a wire cable stretched across the river to keep the barge in a straight line when being pulled across for a series of readings. The distance from zero or the water's edge on the bank is measured on the cable, and for each reading the depth is taken by a wire fitted with a float and connected with a drum in the barge that registers the metres. The current-meter is a revolving circle of small metal buckets sunk over a torpedo-shaped weight. The axle of the bucket-circle or wheel is attached to the wire of a battery and a "buzzer". Each revolution therefore gives a loud buzz at contact, and the reader counts the buzzes with a stop-watch. The revolutions of the instrument have been carefully measured in tanks in Egypt to ascertain the speed of current at such-and-such a number of revolutions per minute. When the current is very swift another wire is attached which buzzes every ten revolutions instead of every one. During the flood season working with the cable is impossible; the barge is then towed by a tug, and angles are taken by compass to fixed marks on the banks to get the site of the readings. Twenty sections are measured across the river in one day's readings.

In Roseires I received a telegram instructing me to go to Khartoum before returning to Dangila, and inviting Shaka Mangasha to accompany me as my guest, if he liked to come, as a reward for his hard work on our two long journeys down the Abbai. He was delighted to come, and I took the opportunity of taking with me Turuna Habasha,



BLUE NILE CURRENT METER AND STAFF AT ROSEIRES, SUDAN



SENNAR DAM, BLUE NILE, SUDAN

the head muleteer, to show him Khartoum, of which he had so often heard.

There is little more to be said, as the Blue Nile from Roseires to Khartoum is well known. The cars by which we travelled kept along the left bank to Singa, the headquarters of the Governor of Fung Province. Here we saw the first steamer, although steamers ply as far as Roseires when the river rises in flood. The car took us to Sennar, and we went to see that huge pile of masonry, the Sennar Dam, the Third Blue Nile Bridge, which banks back the water of the Blue Nile and raises it to flow down irrigation channels to water the cotton-fields of Wad Madani, usually known as the Gezira.

The railway line on which we travelled from Sennar to Khartoum still follows the left bank of the Blue Nile, and one gets continual glimpses of the river all the way to Khartoum. For hours after leaving Wad Madani the train passes through green fields of cotton interlaced with canals all flowing from the great dam, country that before its construction was little removed from desert.

At Khartoum the Blue Nile is spanned by its last bridge, the Fourth Blue Nile Bridge, carrying a railway line, a tram-line, and a roadway, and just below the city the Blue and White Nile meet to become the Nile.

Here my story really ends, but I venture to add, for its hint of the picturesque and barbaric life so close to the prosaic business of my survey, a note of the entertainment given me by the Governor of Gubba when I was able to pay him my promised visit on the way back to Dangila.

I arrived in Hulgizi on April 11th, after climbing and descending some rough tracks among high hill ranges. The settlement nestles in one of the valleys. During my stay I was entertained royally by Dejazmatch Banja, or

Hamdan Abu Shok, to give him his Abyssinian and Arabic titles, the Governor of the big negro province of Gubba, which extends in the direction of the Balas River very nearly to the Abyssinian escarpment, and which he rules very ably as a representative of the Abyssinian Government. The Arabic name Abu Shok, literally translated, means Father of Thorns, hence porcupine. It was the name of his father, who ruled the country before him and is now dead.

Hamdan Abu Shok is a man of enormous bulk, and it is said that a mule can only carry him for twenty minutes, so his journeys are undertaken by relays of riding mules. He had, at the time of my visit, had a Ford lorry brought from Roseires, partly under its own power and partly dragged over the hills, in which he could ride in more comfort, but he had only had motor roads made in the vicinity of his town. A Sudanese motor-mechanic had been engaged from Khartoum to drive it. I was able to help him to extend his journeys. He said he was anxious to buy a bigger lorry to carry his trade goods to Roseires and would like to be able to go there himself, as he had sent some of his sons there to school, but there was only one level line of country where he could make a road to reach the Sudan frontier, as the shorter routes passed over some very high hills. Unfortunately at that one place no Sudan motor road came to the frontier, so that his cars could get no farther. He asked my assistance, and I put his case before the authorities, who consented to clear a track so that his cars could pass through. Within a year this was completed, and his lorry was carrying Wanbera coffee to Roseires and had replaced the mule caravans that had previously taken it. When, after the coronation of the Emperor Haile Silasi, Hamdan Abu Shok was invited to go to Addis Ababa to offer his congratulations, it was by Roseires and the Sudan that he travelled, for it is doubtful

if with his weight he would ever have survived the journey on the direct road by mule.

This road may develop in the near future into a much more frequented highway if a road from Lake Tana to Roseires is constructed, for it is the most inexpensive alignment that has been found.

On my arrival at Hulgizi camp, at which a rest-house had been specially built for me of tree-branches and timber, the Ford lorry came to take me to pay a call on the Governor. His house is perched on a hill-top, and the ascent to it was steep. I noticed that breakdown gangs were stationed at intervals to push, if pushing were needed. The car boiled half-way up the hill and had to come to rest while cold water was poured into the radiator. A guard of honour was drawn up alongside the road near the house. The band was equipped with khaki uniforms of the Sudan Police pattern, and had bugles and drums with which I was greeted by a twang of Arab music. The Governor met me on the top and took me into his house, which had stone walls and a corrugated iron roof, considered the last word in refinement in present-day Abyssinian architecture. The floor was covered with bright-coloured carpets, and the chief article of furniture was a brass bedstead. He wore a dark silk Abyssinian cloak, decorated with much gold braid, and a red silk handkerchief round his head. I was interested in his descent, and had noticed that one of the flags on his car was of red cloth with "Sultan of Fung" in Arabic, with a crown on the top, in white. This would be a title used only for local consumption. He said that it was true that he was descended from the Fung Kings.¹ He was named Hamdan, his father was

¹ "The first King of the Fungs was Amara Dunkaz, and he began to reign about A.D. 1515." The contemporary Emperor of Abyssinia was Galawdewos, A.D. 1508-1540. Adlan II, 1778-1779, was the last, his contemporary on the Abyssinian throne being Salomon, 1777-1779. The Arab tribes, assisted by the powerful negro tribe of the Fungs, gave the

Abu Shok, his grandfather Ibrahim, and so on through Muhammad Nur, Hasan, Hamad to Wawirt. These were all I wrote down. The name of Wawirt does not come in any published list of Fung Kings that I have been able to find. Unfortunately his list of ancestors did not go back far enough, as the Fung dynasty came to an end in 1779, but there is no reason to doubt that he is, as he said, a direct descendant of the Fung royal line.

I asked him what the name of Dejazmatch Banja meant. He replied that his real name was Hamdan, but that of Banja was given to him in Abyssinia and had been derived from a man called Abu Anga, who was a Dervish. Hamdan is a Muhammadan, and is, in relation to his immediate surroundings, an educated man. His people are Muhammadans, but are little removed from paganism. The tribesmen that I saw round Hulgizi were, he said, Gumz and Fulata negroes.

In the evening he sent his Gumz villagers to play and dance. They had two big drums like those seen in Abyssinian churches, and some men were blowing down a short stout tube or cane, one foot long, which gives a peculiar squeak; when all are sounded together it makes a weird volume of sound. The men flourished tree-branches and spears and formed a wide circle with the drums and a few dancers in the middle. The chief dancers sang a line, and the crowd joined in the refrain, shuffling feet to and fro and bowing to the centre. Three women danced in the centre by themselves. Most of the people lining the circle were men, but women who had brought water for refreshment in calabashes slung on each end of a long bamboo and balanced on one shoulder, for dancing in

Christian kingdom of Nubia its death-blow. "The Fungs, whose origin is unknown, made Sennar their capital, and their kingdom extended from the head of the Third Cataract in the north to Fazogli in the south, and from Sawakin on the Red Sea in the east to the Nile on the west."—*A History of Ethiopia*, p. 106.

that heat is thirsty work, stood in a group outside and did a stomach dance to time. Occasionally a man came forward and, standing in front of a woman, danced with her, placing one hand, sometimes two, on her shoulders. Facing each other they did the stomach dance, then the man stooped and touched his naked right breast against her left breast, and then his left breast against her right breast, and made a sucking noise with his lips. Little girls were standing apart, leaning on their sticks, and doing the stomach dance to the time of the music. One woman had anklets of jingling balls made of *dom* palm nuts, and several had silver coins in their noses hanging down over their lips. Several men and women had the top of the ear pierced by a white stick or quill. Some women had a small black charm-box woven in their back hair; the hair was tightly curled in rows and was thick with grease. As the dance progressed and the performers got warmer, the grease began to melt and the atmosphere reeked of pigsty. I had noticed innumerable tame black pigs running loose round the villages, and now it became unnecessary to ask the origin of the head grease. I had never before seen tame pigs in any villages in Abyssinia.

All the women wore bead necklaces. Their backs were thickly scored with marks or cicatrices made with a knife, powder being rubbed in to raise the flesh; there were cicatrices also on the arms, mostly on the right arm, and the arms were tightly bound with bands of black cord. Their backs and breasts were bare, a single skirt covered the thighs. The men wore odd bits of European clothing, so their dress was not distinctive. Their heads were shaved; sometimes a circular tuft of hair was left in the centre, and a few had it left on the side of the head, giving a ridiculously jaunty appearance.

SUMMARY

THE results of my expeditions may be summed up as follows:

The Blue Nile Valley had been followed from its source to its estuary for the first time, and a complete map of it has been compiled by joining the three or four compass traverses I had made of the different sections, but has not yet found its way on to published charts. I had seen the river for most of this distance but had had to miss two loops, one at Gonsha and one between Siribanti and the Dabus River. As Jessen had already travelled along the banks of the river on this last section, it leaves only the Gonsha loop, a length of about 15 miles, that can be described as unseen by European eyes.

The four main questions mentioned in Chapter I could now for the first time be answered from actual experience.

(1) There are no lakes except Lake Tana.

(2) On the Small Abbai there are several falls of about 30 feet of sheer drop, but on the Big Abbai there is only one fall, Tisisat, 150 feet in height. For the rest of the way the river drops gradually from an altitude of 5463 feet below Tisisat to 1442 feet,¹ the water-level at Roseires, by a series of small descents that cannot be described as bigger than rapids or cascades, interspersed with level reaches formed by rock bars.

(3) There is no level area of land in the valley of the Blue Nile in Abyssinia or in that of its tributaries that is suitable for irrigation projects.

(4) There are two possible sites for reservoirs, or rather two places where engineers might prospect with some

¹ From my unadjusted aneroid barometer reading on March 14, 1929.

chance of success. Nowhere was there a natural site of outstanding suitability, and the two that I have mentioned are chosen as much for their accessibility to outside communication and their proximity to building material as for the fact that they are reaches of several miles in which the aneroid shows that there is less fall in the river-bed than elsewhere.

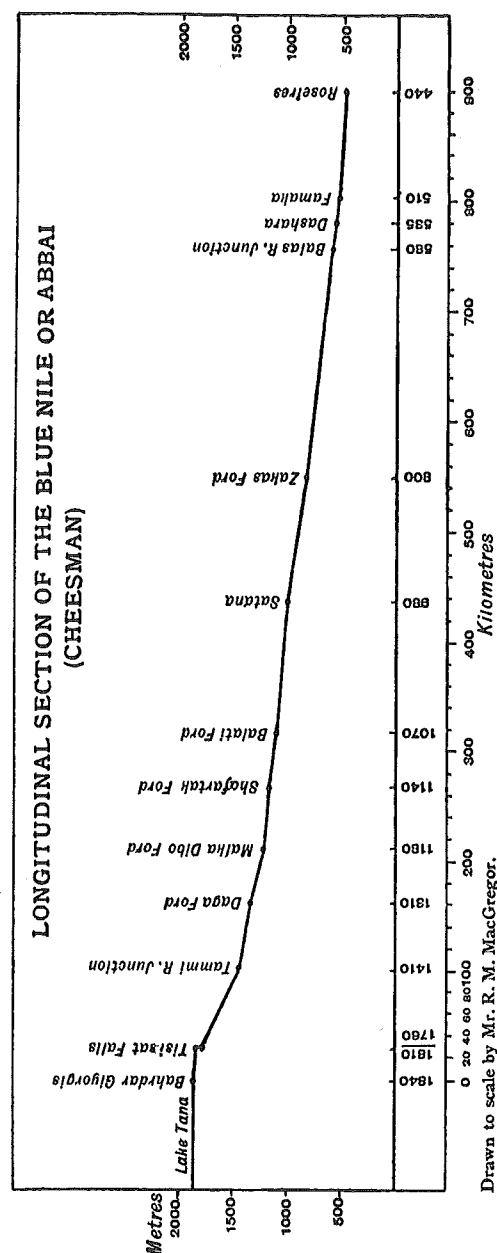
Both sites have the same drawback, that they would collect large quantities of silt, the disposal of which from a reservoir would present a problem that in the case of Lake Tana does not arise. The site in the neighbourhood of Kork and upstream of the unfinished bridge below Zemmi would be the most accessible from Addis Ababa, 100 miles distant, as it is here that the bend of the valley brings the river to its nearest point to the capital. Granite and sandstone rock, good limestone and sand can be obtained in the vicinity.

The water-levels are: Zemmi bridge site, 3222 feet (barometer); Kalo ford, Zemmi, 6 river miles upstream of the bridge, 3248 feet (boiling-point thermometer); Balati ford, Kork, 11 miles upstream of Kalo, 3435 feet (boiling-point thermometer).

A general description of the valley has been given previously.

The Yaringhe Hill site near Camp I in Gubba (p. 360) would be the most accessible from the Sudan, being 40 miles from the frontier, up to which on the Sudan side there is already a dry-weather motor track from Roseires. The land from Yaringhe to the frontier is comparatively level, although it crosses the foot of some hills, and road construction would not be difficult or expensive.

There is granite rock and sand in the vicinity, but limestone is unlikely to be found. The water-levels were: Gubba Camp I, about 3 miles downstream of Yaringhe, 1789 feet; Abbai-Balas junction, 10 miles upstream of



Yaringhe, 1789 feet; and the Abbai near Beri Hill, 1789 feet. These levels were obtained from aneroid barometer readings, which are not considered reliable within a few feet but are sufficiently dependable to show that the fall in the river-bed is very slight.

A general description of the river has been given.

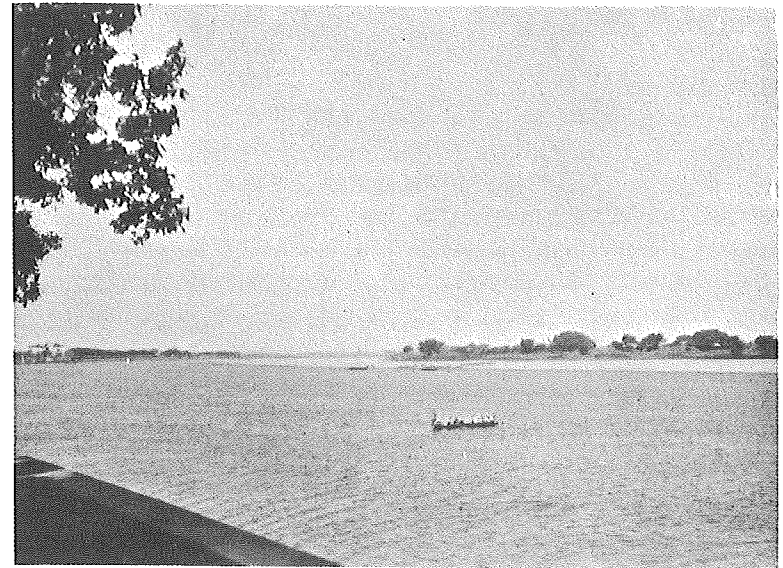
In both cases, as the river is not confined in high banks a certain area of forest would be flooded. The extent of this could only be estimated after a set of levels had been taken, and it obviously depends on the height of the barrage.

APPENDIX

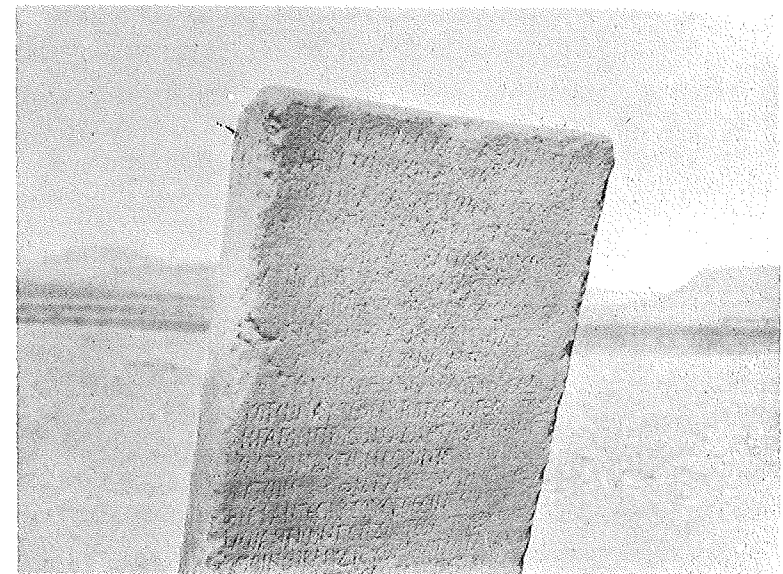
THE KINGS OF ETHIOPIA

AMONG the Ethiopic manuscripts that have found their way to Europe and have been translated, there have been several that contained lists of the Kings of Ethiopia. In some of these lists the scribes who compiled them began with Adam and carried an unbroken succession down to the first Menelik, the son of Solomon, and from him to the second Menelik of modern times, but few of these records agree with each other, and none has won the confidence of Ethiopic scholars in Europe. The throne of Ethiopia has not always been held by kings of the Solomonic line. About A.D. 950 this line was broken by the Zagwe Kings, of whom the famous Lalibala, builder of the wonderful rock-hewn churches, was one, whose dynasty lasted for about three hundred years, but the kingship returned to the descendants of Solomon with Yekuno Amlak in 1268 or 1270, the Solomonic line having been carried on by the princes of Shoa, of whom he was one. Since then there has been a period to which the Abyssinians themselves refer as the rule of the Rases or the Walloch.

Sir E. Wallis Budge in *A History of Ethiopia* gives the translations of all the King lists known, and devotes much space to comparisons between them, and to consideration of their merits and defects. Before going to Lake Tana I had copied his dates for the reigns of the Emperors in order to be able to give an approximate period for any tombs or buildings that I might be shown on the islands, and it will be useful to reproduce them here for reference with the addition of some of my own notes. It will not be necessary, for my purpose, to go back farther than Ezana, King of Aksum, whose inscription on a stone tablet at Aksum, written in three languages, Greek, Sabaeen, and Ethiopic, has been translated and published by Dr. Littman, Director of the German Aksum Expedition. The text of the inscription refers to the successful campaigns of Ezana in many lands, including Southern Arabia, but the most important fact that appears on the stone is that during the first part of his



BLUE NILE AT KHARTOUM (p. 367)
In the distance (centre) Blue and White Nile junction and Omdurman



INSCRIPTION OF KING EZANA AT AKSUM

reign Ezana was a pagan, as he gives thanks for his victories to heathen gods, but in the later lines he acknowledges that his successes were due to the one God of Heaven. This has suggested the possibility that his reign was associated with the first conversion of the Ethiopians to Christianity by Abba Salama or Frumentius, the Syrian monk, in the first half of the fourth century, or A.D. 333 according to Basset. The Abyssinian chronicles do not mention Ezana, stating only that the conversion of Ethiopia to Christianity took place during the reign of Abreha and Asbeha, but as Budge points out, these two names are possible corruptions of those of Ezana and his brother Shaiazana, or they may have been second names, as Abyssinian kings have more than one name—a baptismal name and a throne name—sometimes two or three.

ABREHA and ASBEHA

Two brothers who ruled together at Aksum, and during whose reign Christianity was introduced into Ethiopia, for which event the date A.D. 333 is approximately correct.

ALAMEDA or ELLA AMIDA

During his reign nine monks arrived from Byzantium, who reformed the faith. Among them was Abba Aragawi, who is to the present day regarded as a saint. They were Monophysites who came from Syria or that neighbourhood, and it was they who first translated the Scriptures into Giz or Ethiopic.

ELLA ASBEHA, also known as KALEB. A.D. 514-542

He crossed the Red Sea with an army and made war against the Himyarites to avenge the massacre of the Christian martyrs of Najran, and restored the authority of the Abyssinians in Arabia.

BETA-ISRAEL, son of KALEB

GABRA MASKAL, son of KALEB. Probably A.D. 550-570

During his reign Yared the deacon compiled the great *Maxgaba Deggwa* or "Treasury of Hymns" of the Abyssinian Church. His viceroy Abreha, Governor of Yaman, fired with Christian zeal, tried to prevent the pagan pilgrims from going to Mecca, built a church in Sana as a counter-attraction, and even set out with thirteen elephants to destroy the K'aaba itself. The Koraish tribe, guardians of the K'aaba, fled, but

the Black Stone was saved by a miracle, for the elephant on which Abreha rode knelt down when it was urged towards the K'aaba, and refused to approach.

Period A.D. 600-970. The King lists give the names of 22 kings, but not the years of their reigns. The last was DELNAAD, and the throne was taken from him and occupied by others who were not Israelites, *i.e.* the Zagwe.

THE ZAGWE KINGS

In the middle of the tenth century the kingdom of Ethiopia passed to this line of kings, who were not descendants of Solomon. The Zagwe period lasted 354 years, and during it the capital was removed from Aksum to Lasta. The authors of the revolution which brought about this change were the Falashas, who were of Jewish origin and practised Judaism, and the Zagwe, a tribe of the Agaus, who were Christians. The most famous of the Zagwe was LALIBALA, who built the rock-hewn churches which are among the wonders of the world. While the Zagwe were reigning in Lasta, Delnaad of the Solomonic line and his successors were reigning in Shoa. With the end of the rule of the Zagwe Kings we come to a period of authentic history from 1268 to the present time.

YEKUNO AMLAK. 1268-1283

A prince of Shoa who terminated the rule of the Zagwe Kings with the support of the Church. He was of the Solomonic line and had made a pact with the Archbishop, Abuna Takla Haimanot, that if he were placed on the throne he would give a third of the kingdom to the Church. Abuna Takla Haimanot, the statesman-Archbishop, who lived in the thirteenth century, must not be confused with the Abyssinian monk, the famous ascetic and saint of the same name, who lived supposedly in the seventh century. It would seem that Sir E. Wallis Budge has not distinguished between them.¹

YAGBEA SEYON. 1285-1294. Son of Yekuno Amlak

WEDEM ARAD. 1299-1314. Son of Yekuno Amlak

Early in the first half of the fourteenth century the Arabs began the series of wars against the Abyssinians that lasted for about three hundred years.

¹ *A History of Ethiopia*, p. 286.

AMDA SEYON I or GABRA MASKAL (II or III). 1314-1344. Son of Wedem Arad

NEWAYA KRESTOS or SAYFA ARAD. 1344-1372. Son of Amda Seyon

NEWAYA MARIAM WEDEM ASFARE or GERMA ASFARE. 1372-1382

DAWIT (David I). 1382-1411. Son of Newaya Krestos.

His General besieged the Arabs in Zeila on the Red Sea, which capitulated after three days. The mosques were destroyed and churches were built in their place. In the reign of David I a piece of the wood of the True Cross was brought to Abyssinia from Jerusalem. This event is commemorated to the present day by the feast of Maskal (the Cross). David was killed by the kick of a horse and was buried in the monastery of St. Stephen on the island of Daga, Lake Tana.

TEWODEROS (Theodore I). 1411-1414. Son of David I

YESHAK (Isaac I). 1414-1429. Surnamed Gabra Maskal. Son of David I

ENDREYAS (ANDREW). Reigned a few months and died in 1430

TAKLA MARIAM or HEZBA NAN. 1430-1433. Son of David I

SARWE IYASUS MEHREKA NAN. Reigned a few months in 1433. Son of Takla Mariam

AMDA IYASUS BADEL NAN. Reigned a few months in 1434. Son of Takla Mariam

ZARA YAKOB (Constantine I). 1434-1468. Son of David I

In his reign the "Book of Mystery" was composed by Abba Giyorgis. A Venetian monk and painter named Francisco di Branca-Leone came to Abyssinia at this period and lived, married, and died there. It is his paintings of the Virgin Mary and other saints that have influenced the pictures of scriptural subjects found in Abyssinian churches. Zara Yakob made regulations concerning the faith of his people, and his writings include several well-known Abyssinian books. To counteract the growing power of the Arabs he sent two missions to Rome to seek the assistance of the Pope. He also founded an Abyssinian monastery in Rome. He died in Debra Berhan and was buried in Debra Naguadguad, and in 1498 the Emperor Naod removed his body to the island of Daga, Lake Tana.

BAEDA MARIAM, surnamed CYRIACUS. 1468-1478. Son of Zara Yakob

ESKENDA or CONSTANTINE II. 1478-1494. Son of Baeda Mariam

In 1490-91 Pedro de Covilham arrived in Abyssinia, sent on a mission by John II, King of Portugal, who was anxious to enter into communication with the elusive potentate "Prester John".

AMDA SEYON II. Reigned a few months in 1494. Son of Eskender

NAOD ANBASA BAZAR. 1494-1508. Son of Baeda Mariam

Under him the Portuguese, de Covilham, gained great power at court, and was able to communicate frequently with the King of Portugal.

LEBNA DENGEL (Dawit [David] II) WANAG SAGAD I. 1508-1540. Son of Naod

During his reign an appeal for help against the Muhammadans was sent to the King of Portugal, who decided to send a mission. De Lima and sixteen Portuguese arrived at Gondar, where Lebna Dengal then was, but, flushed with his early victories over the Arabs, the King was in no mood to make an alliance with Portugal, and de Lima returned in 1526. In 1527 Ahmad Gran, the Arab warrior of Adal—the Danakil deserts near the Red Sea—who was supported by men and artillery and firearms sent by the Turks, began the conquest of Abyssinia, and from that year until his death Lebna Dengel was a hunted man. When he found himself driven by Gran from country to country he sent another mission to beg assistance from the King of Portugal, and promised that if it came in time he would acknowledge the supremacy of the Pope. The King of Portugal sent ships with four or five hundred soldiers to help the King of Abyssinia to fight the Muslims, but when they arrived Lebna Dengel was dead, and his son Galawadewos reigned in his stead. By 1535 Gran had burnt Aksum, was in occupation of the provinces of Shoa, Samen, Dembea, and Bagemdir, and in 1536 he invaded Gojjam. In 1537 he burnt Galila, an island monastery on Lake Tana.

GALAWADEWOS or CLAUDIUS. 1540-1559. Son of Lebna Dengel

In 1540 four hundred Portuguese musketeers, led by Don

Christophe de Gama, arrived in Abyssinia and joined Galawadewos, who rallied the scattered bands of Lebna Dengel's army. In one of the early battles with Gran's troops de Gama was captured and decapitated, but in 1543 Galawadewos was able, with the help of the Portuguese, to win a decisive victory near Lake Tana, and the fate of Abyssinia as a Christian nation was decided by the death of Gran and the flight of his army. The Portuguese and the Abyssinians both claim the credit for having slain the Muhammadan leader.

MINAS WANAG SAGAD II or ADMAS SAGAD I. 1559-1563. Son of Lebna Dengel Dawit (David II)

SARSA DENGEL MALAK SAGAD I. 1563-1597. Son of Minas

YAKOB MALAK SAGAD II, JACOB. 1597-1603. Son of Malak Sagad.

Yakob's capital was at Dunkaz, and in 1603 he was deposed. In 1603 Pedro Paez, a Jesuit priest, arrived at Massaua and, making his way up country, established himself at the Catholic monastery of Fremona near Aksum.

ZA DENGEL ASNAF SAGAD II. 1603-1604. Son of Abeto Lesana Krestos, the brother of Malak Sagad I

This king was much impressed with the preaching of Pedro Paez and decided to embrace the Catholic religion. The priests and people were incensed and stirred up a rebellion, in which Za Dengel was killed. He was buried where he fell, but ten years afterwards Susenyos had the body removed and buried in the monastery of Dek (Daga) on Lake Tana.

SUSENYOS MALAK SAGAD III or SELTAN SAGAD I. 1607-1632. Son of Fasiladas, and grandson of Yakob

In 1621 he was converted to the Roman Catholic faith by Pedro Paez, and declared the submission of himself and his country to the Pope, and in this year the power of the Jesuits reached its zenith. Susenyos tried by coercion and torture to establish the Roman Catholic religion in place of the faith of Alexandria, but his subjects would not accept it, and in 1632 he had to give them religious freedom. He himself abdicated and died a Catholic. Paez had built for the Emperor a one-storied palace in Aksum and one in Gorgora on the north shore of Lake Tana. Near the palace of Gorgora was a church and monastery, which the Jesuit Fathers had built with their own hands.

FASILADAS or FASIL, ALAM SEGAD or SELTAN SEGAD. 1632-1665.

Son of Susenyos

He reversed his father's religious policy and supported the Alexandrian faith against the Catholics. In 1633 he banished the Jesuit priests, who had now begun to meddle in politics, and burnt their books. Several of the Fathers who refused to leave the country were beheaded and hanged. Fasiladas abandoned Aksum and made his capital at Gondar, a town 20 miles north-east of Lake Tana, where he is said to have employed Portuguese workmen to build a palace, which was restored and added to by Iyasu II (1730-1755). These magnificent buildings are now in ruins, having been partly destroyed by an earthquake in 1704, sacked by King Theodore in 1867, and the ruin completed by the Dervish invasion in 1887. Fasiladas also rebuilt, with the help of Portuguese workmen, the Church of Aksum which had been burnt by Gran. Tradition says that the picture of Christ's head crowned with thorns, which was painted by St. Luke, was kept in this church, and was saved from destruction at the hands of Gran, as it was carried by the soldiers to a church on one of the islands of Lake Tana. Fasiladas spanned the Blue Nile with a masonry bridge, for which he used masons from India. This bridge, which is mentioned by Lobo, is below Mota and is called the First Blue Nile Bridge.

YOHANNES (JOHN I) or ALAF SAGAD. 1667-1682. Son of Fasiladas

He is now spoken of as Yohannes Kadus (the Holy John). During his reign a discussion was held on the incarnation of Christ, between the monks of Debra Libanos, followers of Takla Haimanot, and the monks who were followers of Eustathius. The former were led by Nikalawos, and the latter by Akala Krestos. The king acted as arbitrator, summed up the arguments of each of the debaters, and having declared that his own opinion was identical with that of the monks of Debra Libanos, he excommunicated Akala Krestos, the follower of Eustathius. He was buried on the island of Mitraha on Lake Tana.

IYASU (JESUS) I or ADYAM SAGAD II. 1682-1706. Son of John I

In 1685 Walda Giyorgis finished the palace at Gondar. In

1687 Iyasu ordered the principal monks of Debra Libanos and Tadban and others to go to the island of Debra Mariam on Lake Tana to discuss the Faith and study the Scriptures. In 1689 Sabla Wangel, the king's mother, died and was buried in the island of Mitraha on Lake Tana by the side of her husband. Budge says this queen is famous as a patroness of literature, and that it was through her that the work of Michael, Bishop of Athubis and Malig in Egypt, was translated into Ethiopic under the title of *Faws Manfasawi*. She also had copied, in the fifth year of the reign of Iyasu I, the great work *Fetha Nagast*, which is the basis of all ecclesiastical and civil legislation in Abyssinia to this day. Budge also says, however, that Lebna Dengel was the son of Naod (1494-1508), by his wife the distinguished Queen Sabla Wangel. The queens of many Emperors were named Sabla Wangel, and although it is certain that one of them was distinguished for encouraging Ethiopic literature, it does not seem clear which one it was. In 1692 Murad, a Syrian merchant, brought to Abyssinia the great bells which were sent to the King by the Governor of the Dutch colonies in India. The bells were hung in Debra Berhan. Subsequently the Emperor Theodore took the big and the little bell to Magdala. In 1704 an earthquake took place in Gondar and the houses and palaces were thrown down. The great tower of the palace, called Djan Takal, fell and crushed many to death. In 1706 Takla Haimanot, the king's son, who had been proclaimed King in Gondar, marched with an army to Barcha, and Iyasu made preparations to fight. When he reached Dengel Bar on the south-east shore of Lake Tana, he was attacked by malaria and had to be carried back to Chikla Manzo Island on the lake. Takla Haimanot sent men there to kill his father. One of the gunners shot him, and they tried to burn the body, but it was taken from them, and the priests buried Iyasu on the island of Mitraha in the tomb of his father and mother.

TAKLA HAIMANOT I (LEUL SAGAD, GERUM SZGAD, ABRAK SAGAD).

1706-1708. Son of Iyasu I

He had his father murdered, and to this day is known as Takla Haimanot the Accursed. He himself was murdered by conspirators and was buried on the island of Kebran on Lake Tana.

TEWOFLOS (THEOPHILUS) ASRAR SAGAD. 1708-1711. Son of John I

YOSTOS (JUSTUS) TAHAI SAGAD. 1711-1716. Great-grandson of King John I

DAWIT III (DAVID), ADBAR SAGAD I. 1716-1721. Son of Iyasu I

BAKAFFA (ASMA GIYORGIS, MASIHI SAGAD, ADBAR SAGAD). 1721-1730. Son of Iyasu I

Bakaffa was a romantic figure and frequently wandered through his kingdom in disguise, and on one of these occasions he fell ill and was nursed by the very beautiful girl who became his queen. She was called Yetege Mentewab, also Berhan Mugasa, and was baptized Walatta Giyorgis.

IYASU (JESUS) II (ADYAM SAGAD II, BERHAN SAGAD). 1730-1755. Son of Bakaffa

About 1738 he built a palace at Gondar with the help of some Christian refugees who had fled from Smyrna. He waged war on the Fung, and fought a losing battle at the town of Sennar with the King Badi ibn Shallukh (1724-1762), son of Nul, who was eventually deposed by his son Nasir (1762-1769). Morie says that in 1750 three Franciscan Fathers arrived in Gondar with the idea of attempting to convert Abyssinia to the Roman Catholic faith. They were well treated by the King, but they failed in their mission. This was the last attempt made by the Catholics to convert the country to the Roman faith. In the reign of Iyasu II Abyssinia shrunk. The ports on the Red Sea were in the hands of the Turks, and they placed their Governors as far south as Matamma (Gallabat).

IYOAS (JOAS) I or ADYAM SAGAD III. 1755-1769. Son of Iyasu II

YOHANNES (JOHN) II. 1769. He reigned six months. Son of Iyasu II
On September 3rd, 1769, James Bruce of Kinnaird arrived at Massaua and lived in Abyssinia until November 1771.

TAKLA HAIMANOT II (ADMAS SAGAD II, TEBAB SAGAD, HAYL SAGAD). 1769-1777. Son of John II

SALOMON (SOLOMON). 1777-1779. Son of Abeto Adahie

TAKLA GIYORGIS or FEKR SAGAD. 1779-1784. Brother of Takla Haimanot II

From 1777 to 1855 twenty-three Kings sat on the throne. It was a

period of anarchy, and no historical event of any importance took place. It is referred to in Abyssinia as the period of the Walloch, or rule of the Rases who were not Kings. From among the warring barons arose one named Kasa, afterwards crowned under the name of Theodore. In 1839 the Italian Father de Jacobis arrived in Abyssinia and introduced the vine and the potato into the country.

TEWODROS (THEODORE) II, KASA. 1855-1868. Son of Dejazmatch Khaylu Mariam or Walda Giyorgis

Theodore made Magdala his capital. He removed many of the manuscripts from the churches and placed them in a library that he was forming in Magdala. Owing to a quarrel with the priests on Mitraha Island, Lake Tana, he attacked the people there with cannon and set fire to the houses. His treatment of the British Consul, Captain Cameron, and several European missionaries who were at his court and were virtually his prisoners, caused the despatch of the British expeditionary force of 32,000 men, under Lord Napier. Theodore shot himself when it arrived at the walls of Magdala.

YOHANNES (JOHN) IV, KASA. 1868-1889

He was killed in a battle against the army of the Madhi at Gallabat.

MENELIK II. 1889-1913

LIJ IYASU. 1913-1916. Grandson of Menelik. Died 1935

He was deposed on account of his Muhammadan sympathies.

ZAWDITU. 1916-1930. Daughter of Menelik

She ruled as Empress, with Ras Tafari as Regent and heir to the throne.

HAILE SILASI. 1930. Son of Ras Makonnen. Reigning Emperor

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